An Investigation into the Role of Patient Coping Style in Psychological Therapy

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Declaration

This thesis has been composed by myself and the work contained herein is my own.

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Contents

Abstract

Objectives

The aim of this study was to investigate the role of patient coping style in psychological therapy, in particular whether patient coping style was associated with therapeutic alliance and therapeutic outcome after six sessions of therapy.

Method

The study was conducted in a naturalistic setting. All outpatients who opted in see a psychologist in a general adult clinical psychology department over a four month period were invited to participate. Patients who agreed to participate completed a pre-therapy questionnaire to measure their coping style. After three sessions of therapy, participants and their psychologists completed independent measures of a therapeutic alliance scale. Participants repeated the pre-therapy coping questionnaire after their sixth session of therapy and another measure (already administered pre-therapy as part of routine practice) to assess for changes in their levels of psychological distress.

Results

Patients with a strong reliance on cognitive *approach* coping strategies were found to have formed a good therapeutic alliance with their psychologist and to have experienced a reduction in their symptoms after six sessions of therapy. Conversely, patients with a strong reliance on cognitive *avoidance* coping strategies were found to have formed poorer therapeutic alliances with their psychologist and to have experienced smaller reductions in their symptoms after six sessions of therapy. Further examination of the results suggested that the therapeutic alliance might be a possible mediating factor between patient coping style and therapeutic outcome after six sessions, although a statistical examination of this was not viable.

Conclusions

The results suggested that aspects of patient coping style might have an important role in the formation of the therapeutic alliance and therapeutic outcome after six sessions of therapy. The methodological limitations and clinical implications of these findings are discussed.

Chapter: 1 Introduction

1.1 General Introduction

In the current healthcare climate, there is a substantial demand for adult mental health Clinical Psychology services, which far outstrips the resources that are available. There is now a need to prioritise limited psychotherapeutic resources so that they are utilised efficiently and effectively (Scottish Executive, 2001). In the past, there has been the belief that this could be successfully addressed simply by adding more resources. However, while increased resources might go some way toward addressing the problem, this introduction will argue that the solution is much more complex and that to provide a more cost effective service, there is a need to assess and match the needs of patients to appropriate resources, rather than assume that all patients benefit equally from psychological interventions.

Psychological therapy (hereafter referred to as psychotherapy) is costly in time and expertise and so clearly it would be advantageous from both a clinical and economic perspective to identify patients who are likely to benefit (or not) (Durham, Swan and Fisher, 2000). Some recent attempts have been made to address this issue through the development of alternative approaches to conventional therapy, such as self-help programmes, computer aided therapy and brief therapy (White, Jones and McGarry, 2000). Although these have the potential to deliver cost-effective psychological interventions, it seems reasonable to assume that this will only be the case if they can be meaningfully matched to the needs of individual patients.

This is entirely consistent with one of the key messages of the NHS Executive Review of Psychotherapeutic Services, namely that psychotherapeutic interventions should be offered at the least complex, costly and intrusive level needed to be effective (Parry, 1996). However, despite a wealth of psychotherapy research over the past 50 years, there are few indications to help psychologists decide which patients are likely to respond best to individual psychotherapy. Thus clinicians are left to make the decision as to which patients they think will benefit best on their own. Consequently, they are likely to spend a large amount of time attempting some form of therapy with people who have little aptitude or motivation to engage in a course of psychological treatment and to spend too little time working effectively with people who are motivated and prepared for therapy (Durham et al, 2000).

The majority of psychotherapy research to date has concentrated on whether psychotherapy works and which types of psychotherapy yield the best results. In comparison, much less research has been conducted into establishing the role that the individual patient has on psychotherapy outcome. Of the research that has examined this, there is some evidence to suggest that certain patient characteristics are associated with the effectiveness of psychotherapy (Garfield, 1994) but this has not been studied comprehensively in a naturalistic setting, nor is there a comprehensive model to explain this phenomenon. However, this is an issue that is becoming more pertinent, as demands on mental health services continue to grow. Indeed, some researchers have started to develop screening methods for particular types of therapy, such as Cognitive Behavioural Therapy (CBT) (Safran, Segal, Vallis, Shaw and Samstag, 1993), although these are as still very much in their infancy and there is as yet no such generic screening tool available. Other investigations into the role of the individual patient in psychotherapy have tended to focus on the patient's presentation, and how complex and severe their problems are deemed to be (e.g.: Durham et al, 2000). However, the evidence for using these factors in the clinical decision-making of selection of patients for is tenuous (Bateman, Brown and Pedder, 2000).

The lack of research into patient's characteristics and their influence on psychotherapy outcome is rather surprising as psychotherapy, regardless of the type, is considered a two-way interaction, and not just done or given to someone in the way a conventional medical intervention is prescribed. The vast majority of psychotherapies require the patient to play an active role in their treatment by engaging with the therapist and allowing frank discussion of their difficulties. Furthermore, this is a topic that psychologists often comment on in their day-to-day practice. For example, the same psychologist may see six patients in a day and perceive that each responds to therapy very differently, regardless of the severity of their problems or diagnosis and despite the fact that the psychologist may be using a specific treatment model and delivering therapy in a similar manner in each case.

Some critics have suggested that the empirical investigation into this area is pointless, stating that a good therapist would be able to predict from a good assessment and "therapist intuition", the type of person that will respond best in individual psychotherapy (Garfield, 1986). However, there is evidence to suggest that rapid, unconscious intuitive modes of judgment and information processing tend to dominate when people perceive themselves to be engaged in relatively

unstructured tasks with limited resources and pressures of time. Conversely, slower, more conscious analytic modes of thinking are likely to be most consistent and accurate when the mode of enquiry adopted corresponds to the essential features of the task and conducted in a logical and thorough manner (Durham et al, 2000). Therefore, having an empirically tested assessment procedure would be considered more robust and therefore be of more use clinically to psychologists than individual intuition. In addition, the selection of patients for psychotherapy should be evidence-based if it is to have any credibility in this current health care climate.

In order to examine these issues in more detail, this introduction will begin by looking at the history of psychotherapy outcome research and the limitations of efficacy research. An examination of factors already known about the role of patient characteristics and responses to psychotherapy will follow, and then the importance of process factors in psychotherapy research, such as the therapeutic alliance will be discussed. Finally, the introduction will conclude with a proposal for the selection of patients suitable for individual psychotherapy based on patient coping style, which will lead to the main aims and hypotheses of the study.

1.2 History of Psychotherapy Research

1.2.1 Introduction

Outcome psychotherapy research began in earnest in the 1950s after Hans Eysenck published a review of 24 studies (Eysenck, 1952). In this review, he concluded that there was no research evidence to support the effectiveness of psychotherapy and that psychoanalysis in particular was less effective than no therapy. Until then, the dominant influence in psychotherapy had been psychoanalysis and its derivatives, although newer therapies, such as Carl Rogers' client-centered approach and behavioural therapy were being developed. Eysenck's conclusion was viewed as very provocative and was strongly criticized by a number of psychologists. However, it had the effect of stimulating a greater awareness of the need for systematic research on psychotherapy. Since the publication of Eysenck's review, there has been a strong research emphasis in the quantity and quality of research on various aspects of psychotherapeutic interventions (Bergin & Garfield, 1994). There are now over 400 psychotherapy techniques that

are in use with adults (Kadzin, 1994) and over 500 studies that have examined the efficacy of psychotherapy (Howard, Orlinsky and Leuger, 1995).

Initially, psychotherapy research was concerned with whether psychotherapy actually worked. In the 1960s this was important to research, as the medical model was the driving force of psychiatry and there was a need for psychologists to prove that new talking therapies could also yield favourable treatment outcomes for psychiatric problems (Bergin & Garfield, 1994). To investigate this, the research design of choice was to use Randomized Controlled Trials (RCTs). This method of analysis design was considered a robust manner in which to assess how effective a particular type of therapy was in treating a randomly collected population with a common diagnosis against a medication or control group. To do this RCTs involve the strict randomisation of patients with a specific diagnosis to each condition with rigid exclusion/inclusion criteria. They also demand that all patients in each therapy condition receive the same treatment for the same number of sessions and by doing this, as many factors as possible are controlled so that the major variable is the intervention itself.

Over the past 40 years, numerous RCTs have been conducted to examine the efficacy of various kinds of psychotherapy. The vast majority of these attest the efficacy of psychotherapy (Tillet, 1996). Many of these have met the criteria for further meta-analyses. For instance, Smith, Glass and Miller (1980) conducted a meta-analysis of psychotherapy effectiveness studies and concluded that, at the end of treatment, the average person is better off than 80 percent of the untreated sample. The results of such meta-analyses have in turn been used to inform evidence-based practice. Indeed, in 2001 the Department of Health published the first Evidence-Based guidelines for Psychological Therapies (Department of Health, 2001).

1.2.2 Problems with Efficacy Research

However, while RCTs are considered to be the 'gold standard' in evidence-based medicine because of their ability to deal with bias through the randomisation process, their use in psychotherapy outcome research has a number of limitations. The main problem is that with RCTs, there is a trade off between efficacy and effectiveness. Although RCTs can demonstrate whether or not a treatment works (efficacy), the more selective the sample is and the more rigorously defined the intervention, the less applicable the treatment is likely to be to routine

practice (effectiveness) (Nathan, Stuart and Dolan, 2000). This is because few people are so rigorously screened in general clinical practice and the randomisation of patients to different therapies does not represent normal patient entry into and continuation with treatment (Margison, Barkham, Evans, McGrath, Clark, Audin and Connell, 2000). Furthermore, treatments found to be efficacious in carefully defined conditions do not necessarily generalize to other settings such as under resourced psychotherapy departments. There are also problems of differential attrition, non-comparability of comparison groups, psychometric problems with outcome measures, inconsistency of treatment delivered and contamination by other treatments in trials of long-term therapy (Bateman et al, 2000). Another limitation is that RCTs yield little information about how an individual will respond to therapy. Its' reliance on the use of diagnostic categories as a method of trying to control for variance within a population has been criticized for ignoring the varied personalities and presentations such a group could contain.

These criticisms of RCTs have led to some researchers stating that despite decades of research, we are still faced with the outcome paradox. That is, we know that psychotherapy is effective, but we also know that contradictory theoretical approaches are equivalent in outcome despite major distinctions in therapy context, structure and process. Thus, RCTs are limited in their sole function of demonstrating that regardless of the disorder and mode of treatment, treatment is preferable to no treatment and any treatment is preferable to no treatment (Margison et al, 2000). This conclusion has led to some researchers claiming that psychotherapy outcome research is meaningless, as it tells us little about how psychotherapy actually works.

> *This concept is commonly referred to as the 'Dodo bird verdict', an analogy drawn from Lewis Carrol's Alice In Wonderland where there was a race but the animals all ran in different directions. The race was stopped and the Dodo bird was asked who had won. Unsure of what to say, the Dodo bird therefore declared that "all have won and must have prizes". This was not a satisfactory conclusion as the runners had started and finished from different points and were being compared on meaningless criteria (Luborsky, Singer and Luborsky, 1975).*

Thus efficacy research with RCTs and the use of diagnostic categories as methods of investigation in psychotherapy outcome research has been highly criticized. Whilst the use of

such techniques demonstrate that psychotherapy works, all that is learnt is that if therapists give patients with the same diagnosis the same treatment, most get better. "Basically we are left knowing that psychotherapy works in the same way that antibiotics work, however we are left with the problem of determining which antibiotics are appropriate treatments for which kind of infections" (Howard et al, 1995, pg: 4). In other words, despite the accrued evidence-base for psychological interventions we know little about how individual variables interact with treatment and on what basis to match individuals to treatment, nor do we have any sense of the group of people who in fact do not appear to benefit from psychological treatment.

1.3 Examining Patient Variables in Relation to Therapeutic Outcome

1.3.1 Introduction

In response to the limitations efficacy research and the inability of RCTs to answer why therapy appears to work better for some patients than others, researchers have looked at the role of the patient and the influence of individual characteristics on therapy outcome. The rationale being that patients do not constitute a homogenous group and as such individual differences may therefore account for some of the variance in outcome (Shapiro, 1989). The following is a review of some of the studies that have examined the role of patient characteristics in psychotherapy outcome.

1.3.2 Studies Examining Multiple Patient Variables

A number of other patient characteristics have been found to be related to a favourable therapeutic outcome. Seivewright, Tyrer and Johnson (1998) conducted a 5-year follow-up of patients who had been treated for neurotic disorders and used a retrospective design to investigate which factors were associated with poor outcome. They followed-up 182 psychiatric outpatients, by the examination of their GP and hospital records, who had been seen in general practice psychiatric clinics for generalized anxiety disorder, panic disorder or dysthymic disorder and who had been randomised to drug treatment, CBT or self help. 107 patients had a favourable outcome, but the remainder continued to be handicapped. Analysis of the initial intake data revealed five variables were significant predictors of poor prognosis: older age, recurrent episodes, personality disorder, general neurotic disorder at entry and symptom severity

after 10 weeks. Interestingly, the original treatment was of no predictive value and neither was the DSM diagnosis, as has been found in efficacy research.

Svanborg, Gustavsson and Weinryb (1999) conducted a study to examine what patient characteristics were associated with a favourable outcome in psychodynamic psychotherapy. They retrospectively examined psychiatric diagnoses and character traits (as assessed by the Karolinska Psychodynamic Profile, Weinryb, Rossel and Asberg, 1991) from the interview case-notes of patients applying for psychodynamic psychotherapy. Although, this appears to be have been rather an unreliable method of investigation, the authors argued that if such characteristics were emphasized in case-notes, this was because they were due to their relevance for the interviewer's recommendation of treatment. The results indicated that patients who benefited best were within the neurotic spectrum and with symptoms that "were not too severe". In particular, they had good ego strength, reality testing, sublimatory channels, ability to cope flexibly, verbal capacity, intellect and secondary process thinking, ability to regress in the service of the ego, frustration tolerance and object relations. However, the vague definitions and method of investigation make the generalisability of this study to other settings very difficult.

1.3.3 Motivation

Patient motivation has been found to be a good predictor of psychotherapy outcome in several studies. Keijsers, Schaap, Hoogduin, Hoogsteyns and de Kemp (1999) developed an instrument to assess patient motivation for psychotherapy "The Nijmegen Motivation List 2" based on a previous pilot inventory. The inventory consisted of 34 items such as "I urgently need help in solving my problems", "Actually, I embarked upon treatment at the insistence of others". In the study, they asked 133 outpatients to complete the inventory and investigated the measure's factorial structure, psychometric properties and predictive value for treatment outcome. Results indicated that patients' scores were associated with how useful they found the therapy and dropout rate (those with higher scores were less likely to drop out). However, despite this, the scale relied on patients having to rate themselves on their motivation. Therefore their scores may be more reflective of social desirability, than actual motivation. Although the authors stated that this was not a problem and indeed argued that social desirability may be a facet of the patient's attitude towards treatment, it somewhat questions the validity of such a measure for use as a method of predicting patients' responses to therapy.

Similar to investigation of patient's motivation as a predictor of their response to therapy, "Stages of Change" research has been employed in psychotherapy research (McConnaughty, DiClemente, Prochaska and Velicer, 1989). Originally "Stages of Change" measures were used to evaluate how likely people with addictions were to change with psychological intervention and 1989 such a measure was developed to investigate whether the stage of change a patient was found to be in, would help therapists to establish which patients would respond best to psychotherapy. From an examination of 327 outpatients scores on the measure, the results indicated that the stage of change that a patient was in was related to their outcome in psychotherapy. The authors therefore claimed that the scale could be used as a reliable method of describing persistent clinical characteristics of clients starting therapy that could be used by therapists involved with implementing therapeutic change. However, as with the Nijmegen Motivation Scale (1999) some of the items in the inventory are extremely leading, such as "All this talk about psychology is boring"; "Why can't people just forget about their problems". On account of this, the scale's validity as a measure for the selection of patients' for psychotherapy is dubious, as patients may be more likely to base their responses according to social desirability.

1.3.4 Psychological Mindedness

One aspect of suitability for psychotherapy often mentioned by psychologistss as being an important factor in predicting if a person will respond well to therapy or not, is whether they are psychologically minded (Coltart, 1988). Although generally thought of as a rather vague term, recent attempts to define psychological mindedness describe it as an attribute which individuals ought to possess in order to effectively engage in the process of, as well as benefit from, all forms of insight orientated psychotherapy, such as the capacity to give a history, which deepens, acquires more coherence and becomes contextually more substantial as it goes on (Zimet, 1996). The conventional view of psychological mindedness (PM) tends to emphasize its static quality and that much of what is known about a patient's PM can be quantified prior to their commencement in therapy.

Psychologists' hypotheses about the benefits of having psychologically minded patients have recently been empirically tested. McCallum and Piper (1990) developed a questionnaire, The Psychological Mindedness Scale, and also an assessment procedure, whereby the patient is rated

on their PM by their explanation of people's motives in a video. However, the use of these PM assessment procedures has had mixed results in predicting individuals responses to psychotherapy. McCallum and Piper (1990) found that patients' scores on The Psychological Mindedness Scale were significantly associated with remaining in therapy, and in engaging in therapeutic work. However, they were not found to be significantly related to therapy outcome. Similarly, Kadish (1999) used the scale to examine whether socially phobic adult's psychological mindedness predicted outcome in a seven week CBT programme. Although participants were found to have improved significantly in treatment, their scores on the scale did not predict the rate of improvement. Conversely, Conte, Plutchik, Jung and Picard (1991) investigated the properties of the PM scale in psychodynamically orientated psychotherapy outpatients and found that subjects' scores were correlated with several outcome measures: number of sessions attended, discharge ratings and scores on a global assessment scale and symptom checklist. So at present, the evidence for the use of psychological mindedness assessment measures as methods to predict responses to therapy is ambiguous and suggests that further research on the use of such measures is needed.

Whilst these studies illustrate that some patient characteristics have been found to be associated with a favourable outcome in psychotherapy, many of them have relied on a simple correlational design to investigate associations between a measured patient characteristic or characteristics and outcome. Although this type of design tells us a little about what characteristics are linked with outcome, it does not provide us with any insight into why or how these patient variables interact to produce favourable results.

1.4 ATI research

1.4.1 Introduction

One area of interest that has attempted to investigate the role of patient characteristics in therapy more thoroughly is ATI research. This came about after the observation that although in RCTs different treatments tended in general to have equivalent average outcomes, some people benefited from a particular treatment, others remained unchanged and others deteriorated. It was therefore thought worthwhile to look at whether psychotherapy outcome depended on the match (or mismatch) between specific characteristics of clients and the treatments they received i.e.:

were the null findings from comparative outcome studies obscuring systematic individual differences to specific treatments (Shoham-Salomon, 1991). To investigate this, the paradigm of Aptitude x Treatment Interaction (ATI) was devised, which tried to unpack these relationships by showing how "different folks benefit from different therapeutic strokes" (Shoham & Rohrbaugh, 1995, pg: 74).

Snow (1991), a prolific ATI researcher states that in this paradigm, 'aptitude' refers to any individual difference variable that may moderate effects of a treatment with 'treatment' meaning any type of intervention. The interaction is used in a statistical sense, referring to the moderating effect of aptitude (A) on the relationship between treatment and outcome, with a moderator being a variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependant or criterion variable. An ATI design requires at least 4 data points and usually presumes differential effects, moderated by a client variable of at least two treatments. It therefore offers a much more sophisticated design than the simple correlational design as it is not considered sufficient to show that treatments x and y have different outcomes for clients with a single characteristic or that some client characteristic predicts response to only a single treatment but two different client variables and treatments must be shown to interact together to produce a favourable outcome.

The benefit of using an ATI design over an RCT in psychotherapy research is the potential for direct application to clinical practice. ATI research can help to inform clinicians to make predictions about the type of person who will benefit most from particular types of treatments (Smith and Sechrest, 1991). However, to do this, the clinician needs to know exactly what it is about the patient that interacts with a precisely defined component of treatment. Therefore, the investigations involved in most ATI studies have focused on presumably stable patient characteristics, such as personality traits (Snow, 1991). The stable moderator, measured before therapy is hypothesised to interact with type of treatment to influence therapeutic outcome measured at termination or follow-up.

However, some researchers have reservations about the use of ATI research in aiding the selection of patients for therapy. Beutler (1991) has argued that there are too many patient x treatment variables to investigate that could potentially interact with one another and with therapist variables to affect outcome. In addition, other researchers have questioned the value of

only looking at single patient characteristics as predictors of therapeutic outcome when this ignores a number of other variables that also might have a significant effect on outcome. Despite these reservations, ATI research has shown some patient variables to be consistently associated with therapeutic outcome.

Dance and Nufeld (1988) conducted a review of ATI studies examining client variables in psychotherapy between 1970 and 1988 for the treatment of anxiety, depression and pain. In some studies, certain patient characteristics were found to be predictive of a favourable treatment outcome. For example, for the treatment of agoraphobia (Michelson, 1986), patients were assessed across thee domains of anxiety response: cognitive, behavioural or physiological and classified according to their most prominent type of response. Patients then received treatments either consistent or not with their response patterns; graded exposure, paradoxical intention or progressive muscle relaxation. Patients treated consonantly improved more than those treated non-consonantly.

Despite the success of individual studies to use patient characteristics to predict therapy outcomes, the review found that there were no well documented patient characteristics that could serve as a basis for treatment selection. However, when considered together, there were indications that it might be possible to use patients' coping style as a defining factor, as in several of the studies individuals with an active *approach* coping style tended to do better in talking or active therapies and those with more *avoidant* coping styles tended to do better where they could take a less active role. For example, Simons, Lustman, Wetzel and Murphy (1985) used subjects' scores on the Rosenbaum's Self-Control Schedule (1980) to predict differential responses to treatment, cognitive therapy or medication (Nortriptyline) for depression. The inventory assessed the degree to which individuals used self-controlling behaviours to cope with daily problems, such as controlling self-statements to reduce emotion and physiological arousal. An interaction between initial levels of learned resourcefulness and type of treatment were found; patients who scored high on the self-control schedule improved more with cognitive therapy than medication and there was a non-significant trend that low scorers tended to benefit more from medication.

Similarly, there are many other examples of how patients' pre-treatment coping style has been shown to be predictive of treatment response in more recent ATI research studies outwith the

review. Ludwick-Rosenthal and Nufeld (1993) studied two types of preparatory treatments for patients undergoing first-time cardiac catherization. The treatments involved providing either high or low levels of information about the procedure. The patients in the study were stratified to one or other of these according to whether their preferred coping style involved - seeking information (*approach* coping) or avoiding it (*avoidant* coping). A statistical analysis of behavioural outcomes revealed a clear coping style x treatment interaction: patients experienced less anxiety and coped with cardiac catherization more effectively when the level of preparatory information matched their coping style i.e. when information seekers received more information and information avoiders received less.

In another study (Beutler, Engle, Mohr, Dalrup, Bergan, Meredith and Merry, 1991), group cognitive therapy, focused expressive psychotherapy (group experiential therapy) and supportive self directed therapy were compared among 63 patients with major depressive disorder. Variation among patients' coping styles (internalising or externalising) and their resistance potential, both assessed from scales devised for the study from the Minnesota Multipashic Personality Inventory (MMPI, Graham, 1987), were used in a prospective test of hypothesised differential treatment patient interactions. The results suggested that patient characteristics could be used differentially to assign psychotherapy types to patients with different types of coping style, as externalising depressed patients were found to have improved more than non-externalising depressed patients in cognitive therapy, whereas non-externalising patients improved most in supportive, self-directed therapy. Conversely, high defensive (resistant) patients improved more in supportive self-directed therapy than in either focused expressive psychotherapy or cognitive therapy. Whilst this study yielded favourable results, the authors gave little indication as to the rationale for these interactions.

1.4.2 Criticisms of ATI Research

However, whilst ATI research has indicated that patients' coping style may be a useful predictor of therapeutic outcome, the ATI research paradigm has attracted some criticism. Beutler (1991) has argued that many constructs used in ATI research lack either consensual or consistent meaning and have weak conceptual linkages to psychotherapy theories. He believes that most

have been selected because of convenience or because of previous empirical and 'happenstantial' observation of an interaction effect, which although has led to interactions being demonstrated, their clinical utility are of little use without a guiding framework. This criticism appears to be valid as within the studies reviewed which rated coping style as a useful predictor of therapy response, no comprehensive rationale had been given for this, or an adequate definition of how the authors understood the concept of coping.

In addition to this, ATI research has attracted criticism from some researchers who believe that the ATI paradigm is methodically flawed (Shoham & Rohraugh, 1995). Most ATI research makes assumptions that the pre-defined characteristics investigated are stable and as such will remain static and will not be influenced by therapy. Such an assumption is fine, if the aim is only to match patients to a particular treatment, since matching will be based on what is known about clients before treatment begins (as in the Ludwick-Rosenthal & Nuffield, 1993 study). However the picture becomes more complicated when treatment, by design or happenstance, produces change in the moderator variable itself (Shoham & Rohrbaugh, 1995). This is especially likely when a moderator variable is conceptually related to the individual's problem or treatment.

For example, the idea that aspects of an individual's personality could not be changed by therapy may seem unlikely, given that the primary aim of most therapies is to enhance/change how an individual responds to their environment. Most ATI research ignores this possibility of aptitude change as a result of treatment. If such a finding were to be found, the value of the research could be questionable, as if the personality trait examined could change, it may be inappropriate to consider it as a good predictor of outcome, unless it added to the clinical picture in some way e.g.: if it were found to be related to the process of therapy by influencing the rate of therapeutic change (Shoham & Rohrbaugh, 1995). Whilst such a finding may not be found, most ATI research fails to test out this part of the psychotherapy puzzle.

In conclusion, whilst ATI research has been found to be very useful, in particular the uses of patients' pre-treatment coping style as a predictor of response to therapy, a number of criticisms question its empirical value. In light of these criticisms, it would be advisable to revise and address certain aspects of the ATI design in order to increase its robustness. For example, from Beutler's criticisms (1991), it would seem pertinent only to consider variables as possible predictors of psychotherapy outcome that meet the criteria of having a robust theoretical

background and have shown to have some commonality and consistency in more than one study. From the comments of Shoham and Rohrbaugh (1995), it would also seem important to investigate whether pre-treatment personality traits remain static in therapy, or if they can be changed as a result of therapy.

1.5 Recent Developments

1.5.1 Introduction

The search for means to select which patients are most likely to benefit from therapy continues to receive a lot of attention in the current health care climate as service providers seek to make the best use of limited resources by maximising individual benefit and cost effectiveness. Psychotherapy outcome research studies have attempted to respond to this need by endeavouring to ensure that research conducted is clinically relevant. In addition, more and more studies are beginning to incorporate designs that attempt to incorporate whole sets of variables and how they interact in therapy, rather than just considering these variables in isolation.

As Cognitive Behavioural Therapy is now widely used in health care settings, the topic of which patients are most suited to this type of therapy has been a focus of empirical investigation. Safran et al (1993) looked to developing selection criteria for predicting which patients might best benefit best from short-term CBT. To gauge which patients fulfilled the criteria, they proposed a systematic selection procedure that consisted of a semi-structured interview designed to elicit information from the patient relevant to the criteria, which they named the Suitability for Short-Term Cognitive Therapy (SSCT). In a one-hour pre-therapy screening assessment patients are asked questions about their problems and from their responses, their therapist rates their responses on a Likert scale comprising nine elements designed to reflect the work of Beck, Rush, Shaw and Emery (1979). These are: accessibility of automatic thoughts, awareness and differentiation of emotions, acceptance of personal responsibility for change, compatibility with cognitive rationale, alliance potential in-session, alliance potential outside sessions, chronicity of problems, security operations and focality. Research from the use of the scale on 42 anxious or depressed patients indicated that scores predicted the outcome of short-term cognitive therapy on multiple outcome measures. On this basis, the authors concluded that it was a potentially useful scale for identifying patients who may be suitable for short-term cognitive therapy. However,

other therapists who have used the SSCT claim that the selection criteria are too stringent and are unworkable when used with the typical broad range of clients referred for therapy in general adult settings in publicly funded healthcare (Durham et al, 2000).

Similarly in America, large demands on private health care services has lead to a drive from private health care insurers (and therapists themselves) for therapists to be able to select the most promising treatment for a particular patient and also determine whether the selected treatment is providing sufficient benefit to that patient. To address this need, patient profiling has been developed.

Patient profiling originated as an application of random coefficient regression models to depict the response of a patient to outpatient psychotherapy (Lutz, Martinovich and Howard, 1999). The premise of this model is a mathematical equation that can be used by clinicians to predict who will respond best to psychotherapy. The data for these equations is provided from information about the patient's pre-therapy symptoms, obtained from three self-report measures that examine patients' subjective well-being, current symptoms and current life functioning. Together these scores composite their Mental Health Index (MHI). Then, by assuming a log linear course of recovery, each patient's MHI may be modelled as a function of session numbers, which allows the patient's expected recovery to be compared to information already gathered from others on expected treatment response. Thus, by mapping the patient's actual status against an expected change trajectory, it is possible to address the clinical question of whether the treatment is working. This longitudinal investigation of individuals throughout the course of therapy is a considerable advancement from the simple pre and post designs of previous psychotherapy research studies, as it considers how the individual responds to therapy as they receive it.

However, whilst the authors report this technique to be very useful, at present there is not enough information collected in the UK to be able to make use of such mathematical techniques to establish whether they might be effective or not, although this is something that the Clinical Outcomes in Routine Evaluation (CORE, Core System Group, 1998) may be able to present in a number of years. In any case, this approach may be limited as it relies heavily on severity and diagnosis as factors in predicting treatment outcome.

1.6 Process Research

1.6.1 Introduction

Whilst specific selection methods for CBT and Patient Profiling may not provide the answers as to which patients are most suited to individual psychotherapy in general NHS settings, these studies demonstrate how by using sophisticated methodological designs, research can be directly applied to clinical practices. Likewise, in going beyond simple correlational designs and the investigation of patient characteristics in isolation, the interaction of these variables during therapy can be examined and be used to inform therapists about how the therapy is exercising it's effects (or not). This type of psychotherapy research, known as process research, has been defined as the study of the interaction between patient and therapist systems, with the goal of identification of change processes as these systems interact (Greenberg & Pinsoff, 1986).

The aim of process research is to try to understand the fundamental processes related to the development, change, and alteration of affect, cognition, and behaviour in therapy. Although previous psychotherapy outcome investigations, such as ATI studies have deepened our understanding of what works therapeutically by stating that something worked or not, their usefulness is limited as they are unable to specify how or why things worked. Process research grew due out of frustration at the inability of these studies to explain how their results were achieved, as this undermines the replicability criterion of scientific research (Whisman, 1993).

Process research is still quite limited and has not tended to attract the same level of attention or funding as outcome research. It is also considered to be a complex procedure, with a myriad of variables involved. However, the advantage of incorporating the investigation of how different client and therapist variables interact in therapy to produce favourable therapeutic outcomes, process research can facilitate theory development and help to demystify the complexity of how clients are helped to change. In turn this can allow therapists to increase their knowledge and understanding of what happens in therapy and what processes help patients to change. This can ultimately help them to respond more appropriately to client requirements, and thereby improve their practice (Llewelyn & Hardy, 2001). Although process research is still in its infancy, therapeutic alliance has been consistently identified as an essential element of the therapeutic process as it has been found to play a crucial role in psychotherapy outcome.

1.6.2 Therapeutic Alliance

Therapeutic alliance is considered to be the collaborative and affective bond between therapist and patient (Martin, Garske and Davies, 2000). The concept originated in early psychoanalytic theories and has become increasingly common in recent conceptualisations of the general therapeutic process. Although the alliance is commonly referred to as a single construct, it has been developed from various understandings of the relationship between therapist and patient and the majority of alliance measures currently in use have three themes in common: the collaborative nature of the relationship, the affective bond between therapist and patient and the patient's and therapist's ability to agree on treatment goals and tasks. Similarly, most alliance measures have been developed so that the alliance can be assessed from three number perspectives: the therapist, the patient and independent observer.

There are many alliance scales in use in psychotherapy. Some of the most commonly used ones include: The Pennsylvania Scales (Luborsky, 1984), Working Alliance Inventory (Hovarth & Greenberg, 1986) and The California Psychotherapy Alliance Scales (CALPAS, Marmar, Gaston, Gallagher and Thomson, 1987). The majority of alliance scales can be used at any time during therapy to measure alliance, although it has been found that the early alliance between patient and therapist is a better predictor of therapeutic success than the strength of the alliance later in therapy (Hovarth & Symonds, 1991). Whilst the various alliance measures have originated from several theoretical orientations, they have nonetheless been shown to be highly correlated (Hatcher & Barrends, 1996) and to be reliable instruments with which to rate alliance (Martin et al 2000).

The primary reason that alliance has grown in significance is the consistent finding that the quality of alliance is related to subsequent therapeutic outcome, a finding that has been recently verified from a meta-analytic review of 79 studies, involving an examination of the alliance carried out between 1977 and 1997 (Martin et al, 2000). This indicates that regardless of the many variables that have been posited to influence this relationship, the relation of alliance and outcome appears to be consistent. Clinically this means that if a proper alliance is established between a patient and therapist, the patient will experience the relationship as therapeutic. In this way, the alliance itself may be therapeutic, although alternative explanations for the alliance

cannot be ruled out, such as the alliance may have an indirect affect on outcome or the alliance may interact with other interventions.

The meta-analysis further revealed that alliance ratings of patients, therapists and observers all tend to have adequate reliability. In addition, the authors of the analysis recommended the use of the CALPAS and the Penn scales in future research studies, as they were found to have been scrutinised substantially more than any of the other alliance measures. However, the Penn scales have been criticized for their inclusion of therapy satisfaction items into the alliance, as this brings an outcome contamination into the alliance (Gaston, 1991).

1.7 Recent Process Research

A recent study has attempted to incorporate process research factors into the investigation of what patients are most suitable for CBT. As a result, an extremely comprehensive screening and assessment system has been proposed (Durham et al, 2000). The impetus for the screening system was based on the recognition that therapists often spend large amounts of time attempting therapy with people who have little aptitude or motivation to engage in psychological treatment and spend too little time working effectively with people who are motivated and prepared for therapy but who suffer from complex and severe problems. However, it can be very difficult for therapists to assess for these features in their patients, as it is a complex task. Consequently, without assistance in making such decisions, there is a temptation that therapists will attempt to deliver routine treatment approaches to all patients.

To aid the therapist's decision making, an assessment system has been proposed whereby therapists rate their patients according to the severity and complexity of their problems. This approach is based on a conceptual framework developed in the context of predicting improvement and relapse from previous research the main author had conducted into predictive variables and patient response to CBT (Durham, Allan and Hackett, 1997). It assumes that accurate prediction of a person's response to psychological therapy requires knowledge of two sets of distinct but overlapping variables: general prognostic indictors of the overall likelihood of change and specific treatment response indictors of the individual's willingness and ability to engage with the demands of a particular therapy.

General prognostic factors comprise the severity and complexity of the person's presenting symptomatology and overall social adjustment, i.e.: the severity of their underlying disorder, which is measured using the Complexity and Severity of Problems Scale (CASP), administered through a pre-therapy screening interview. Treatment response indicators, on the other hand, comprise patient's attitudes to psychological therapy, the quality of the therapeutic relationship and degree of initial improvement. The authors suggest that these factors should be assessed after a brief trial of therapy using the Collaborative Alliance and Initial Response scale (CAIR). The hypothesis for patient outcome is that general prognostic factors will be of the most influence in determining long-term outcome and, if prognosis is poor (i.e.: high CASP scores), a good treatment response (recovery) is unlikely, whatever treatment is offered. However, positive engagement in therapy can compensate to some degree for this poor prognosis predicted by the CASP. Thus a *partial* response to treatment is predicted if the initial response to therapy is good (i.e.; CAIR scores are high). Conversely, if general prognostic factors are favourable, then either a partial or a good treatment response is predicted, depending on the quality of engagement in early sessions.

This framework is extremely comprehensive and has the potential of making testable predictions as to which patients would be suitable for psychotherapy based on the complexity and severity of their symptoms and their initial level of engagement and alliance. However, as this selection procedure has only recently been devised, at the time of writing it had not been tested clinically, so the validity of this selection procedure is yet unknown. In addition, as it only investigates the suitability of patients for CBT, the method may not be of use to clinicians who employ an eclectic approach or wish to use other types of therapy with their patient.

1.8 Outcome Research in Context: Current Pressure to Delivering Psychological Therapies in the NHS.

1.8.1 The Tiered Model: Delivering Psychological Therapies based on Complexity and Severity

Growing demands on clinical psychology services has led to a need for the prioritisation of patients to be seen for individual psychotherapy. Durham et al's (2000) research has incorporated patient and process variables into a selection procedure for individuals for CBT, concentrating on the severity and complexity of patients' symptoms as criteria for selection.

Theoretically, this approach has excellent potential for helping clinicians to decide which patients would benefit most from individual CBT. In addition, this also has the potential of helping service managers to match patient need to an appropriate clinical resource as it maps onto the *Tiered Model* that the NHS executive is currently considering (Scottish Executive, 2001). The foundation of the tiered approach is that individuals would receive different levels of help for mental health problems according to the complexity, impact on daily functioning and level of risk that their symptoms posed (Maunder, Cameron and Liddon, 2001). For example at the bottom tier would be individuals with relatively common transient or mild to moderate mental health problems, such as a reaction to a life event for whom self help material or supportive counselling would be appropriate. In contrast, at the fourth and uppermost level would be individuals with severe mental health problems that had a significant impact on their social, cognitive and interpersonal functioning, e.g.: acute schizophrenia, unstable borderline personality disorder and severe depression. These individuals would receive specialist and intensive interagency support and interventions. This framework has many potential advantages, such as the matching of psychological interventions at the need required and the development of specialist services with, for example personality disorders. However, a major disadvantage of this framework is its reliance on the use of diagnostic and severity indicators as predictors of therapy response and outcome.

1.8.2 Should Factors other than Severity and Complexity be considered in Matching Psychological Therapy to patients?

The sole consideration of indices of severity and complexity as criteria with which to select patients for individual psychotherapy ignores the role that individual personality characteristics of patient may have in psychotherapy outcome, yet these have already been proven empirically to be associated with therapeutic outcome. In addition, the various personalities of patients and their different responses to therapy (despite their diagnoses or severity of their symptoms) is a topic that many clinicians often discuss and should therefore be worthy of consideration when selecting patients for therapy. However, it appears that although clinicians find their individual

patients responses to therapy important in their work, this is an area that has received little attention in the research literature.

Within psychotherapy, there is a recognition that therapy, regardless of the type, is not like a simple conventional medical intervention, but that the patient must actively participate in order for change to occur. In reflection of this, different levels of therapy and psychiatric interventions exist, depending on how much the individual wishes to discuss their problems. The less intensive levels involve unburdening, ventilation of feelings and discussion of problems. This is usually offered through counselling and supportive psychotherapy, which are indicated for those who do not want, or could not tolerate, deeper exploration of their problems. At intermediate and inner levels, when a patient is quite psychologically distressed, the question arises of whether the patient wants just symptomatic relief, in which case medication is usually offered or whether they wish to commence therapy to help them understand why they have developed their problems at this time in their life. In such cases individual psychotherapy is usually recommended (Bateman et al 2000). This recognition that different individuals benefit from different levels and forms of therapy is rather like the proposed tiered approach of the NHS, except that it focuses on the individual's personality and their desire to disclose information rather than complexity and severity indices.

For patients who choose to engage in individual therapy, the actual task of therapy is not an easy one. In therapy, "the patient must keep in touch with their adult self and maintain the working alliance with the therapist, but at the same time contact the disturbed and often helpless child in themselves. Then, before leaving a session, they must return to functioning as a reasonable coping adult until the next session" (Bateman et al, 2000, pg: 192). For some patients, this can be very difficult to achieve. People who seek psychotherapy are usually under stress, regardless of whether or not a recent serious life event has brought about the state and the very process of psychotherapy itself imposes a threat. Therefore the person may anticipate exposure and confrontation with ideas and feelings that have been repressed, but which may have had intrusive consequences. In response to this threat, the patient is likely to display habitual coping styles, often of a defensive or resistive nature. Such a response to therapy is unlikely to result in a favourable therapeutic outcome as the more inflexible these styles, the harder it is likely to be for the therapist to work with their patient on problem areas (Horowitz, Marmar, Krupnick, Wilner, Kaltreider and Wallerstein, 1997).

Similarly, Myers (2000) has explored the concept of repressive coping and investigations into this appear to suggest that it may share some psychological similarities with clinician's descriptions of avoidance coping. The concept of repressive coping was popularised after Freud described it as turning and keeping things away from the conscious as a means of ego protection, the motivation for this being the avoidance of unpleasure (Freud, 1957). According to modern day conceptualisations, individuals with a repressive coping style avoid attending to four sources of information: environmental stimuli, their own physiological activity, their own cognitions, and their own action tendencies and behaviour (Derakshan & Eysenck, 1997). The hypothesised motive for this is if threatening stimuli is not repressed, then the individual is at risk of experiencing feelings of discomfort or even trauma. Thus in repressive copers, the maintenance of low levels of negative affect is central to their self-concept. It is believed that that repression of potentially distressing stimuli is achieved by a variety of strategies to avoid conscious knowledge of their genuine reactions, such as distraction (Fox, 1993). By avoiding the processing of negative emotional material, this appears to result in poor recall of unpleasant memories. Indeed a number of studies have demonstrated links between repressive coping and difficulties accessing of negative memories (e.g.: Myers & Brewin, 1994). Weinberger, Schwartz and Davidson (1979) developed a measure to assess repressive coping which differentiates a fourfold classification of individuals by their coping style; low anxious (low anxiety/low defensiveness), repressor (low anxiety/high defensiveness), non-defensive high anxious (high anxiety/low defensiveness) and defensive high anxious (high anxiety/high defensiveness).

1.8.3 Patient Coping Style and Engagement in Therapy – Important Factors to Consider?

These observations about how different patients respond to therapy appear to indicate that different patients interact with their therapists in different ways, which produce different therapeutic outcomes, and that patient coping style may a differentiating factor as to why patients respond to therapy in different ways. As previously discussed, research has demonstrated that patient characteristics, especially coping style is associated with therapeutic outcome, which is consistent with clinicians' observations about how different patients respond to therapy. It would therefore seem pertinent to hypothesize that patient coping style may also

play an important role in the formation of the therapeutic alliance. For example, Bateman et al (2000) have proposed that the characteristic that contributes to a good working alliance is the patient's capacity to tolerate discussion of their problems. "A patient expresses his wish for insight by the way he asks for help and engages in discussion about himself and his problems. If he is rigidly defensive and remains very guarded, or restricts himself to complaining about symptoms ... he is unlikely to want to understand his own contribution to his problems and how he can change ... such a patient is probably not yet ready to join an effective working alliance"(pg: 191). Thus, if such an approach is encountered in therapy, it is likely to have one of several effects: the patient either terminates therapy early as they cannot tolerate discussion of their problems and find it too challenging, or the patient is discharged due a lack of progress, or therapy is long-standing as the therapist has to spend numerous sessions counteracting the patient's avoidance effectively in order to try and maintain a progressive line of work on the focal problems and to foster the therapeutic alliance (Horowitz et al, 1997).

From a theoretical point of view, the patient's contribution to the alliance should not depend on the patient pre-treatment symptomatology. This is because symptom severity is conceptualised as an expression of complex interpersonal intrapsychic and neurobiological processes that are in part, independent of the alliance (Gaston, Marmar, Thompson and Gallagher, 1988). Therefore, patients with stable, trusting and intimate relationships may present with severe depression or anxiety, whereas patients with serious characterlogical problems (e.g.: personality disorder) may not complain about high levels of symptoms. This has been shown by Marmar, Horowitz, Weiss and Marziali (1986) who reported a lack of association between the patient initial level of symptomatology and the patient contribution to the alliance in brief dynamic psychotherapy. This finding is contradictory to the framework proposed by Durham et al (2000) and again indicates that attempts to link patient diagnosis and severity to selection for therapy may not provide a satisfactory method with which to decide which patients may be best suited to individual psychotherapy.

The empirical examination of clinical observations as to what patient characteristics are related to therapeutic alliance has received little attention, however, one study by Gaston et al, and (1988) has examined the relationship between patient pre-treatment characteristics and alliance. Following a four year study into the efficacy of behavioural, cognitive and brief dynamic psychotherapy for depressed elderly patients (Thompson, Gallagher and Breckenridge, 1987),

some of the authors subsequently decided that data from this study provided the opportunity to retrospectively examine the relation between patient pre-treatment characteristics and alliance (Gaston et al, 1988). In the initial study, the patients' symptoms were found to be equally reduced across the three treatment conditions, whereas the condition of patients in a control group remained unimproved. Therapeutic alliance was measured using the CALPAS (Marmar et al, 1987) and two subscales of this scale that reflect the patient contribution to the alliance; Patient Commitment and Patient Working Capacity, were found to relate to symptom reduction in the three treatment conditions. These findings prompted the researchers to examine whether therapeutic alliance could be predicted from patient's pre-treatment characteristics in each treatment condition.

As the study was conducted retrospectively, patient's characteristics were determined from information that had been collected in archival data (prior to the initial study). The authors hypothesized that the patient's degree of defensiveness would be an important factor in determining the alliance; they expected more defensive patients to be less likely to commit to treatment and to engage in an open, active collaboration with the therapist. They therefore found a measure of the patients' degree of defensiveness using the avoidance factor derived from the Daily Living Questionnaire (Moos, Cronkite, Billings and Finney, 1985) on which patients rated the frequency and helpfulness of the strategies they used for dealing with depression prior to the study.

The results indicated that in all treatment conditions, the patient pre-treatment degree of defensiveness was negatively related to the Patient Working Capacity subscale of the therapeutic alliance measure. In addition, patients who used more avoidant strategies in dealing with their depression prior to their therapy were judged by their therapist at the fifth session as being less capable of engaging in the tasks of therapy. In cognitive therapy only, the patient pre-treatment degree of defensiveness towards problems was found to be associated with the quality of the patient commitment to treatment. The authors suggested this might have been because cognitive therapy requires patients to be motivated to identify their negative assumptions and revise their pathogenic schemas, however, avoidant coping strategies may interfere with their commitment to such tasks.

This study appears to indicate that patient's coping style, when defined as being predominantly *avoidant* or not, may be a good predictor of which patients are likely to form a good therapeutic alliance with their therapist. However, caution is required in generalizing the results to clinical practice. As the therapists knew that their patients were completing therapeutic alliance measures throughout the course of therapy, this could have resulted in a heightened awareness of their role in therapy. Therefore the therapists may have focused their work more than usual on building a good alliance and motivating the patients, thus diluting the influence of patient pre-therapy characteristics on the establishment of the alliance. In addition, as this research was conducted with an older adult population and whether similar results would be found in a general adult population remains to be established.

Thus, there is some tentative evidence that a patient's pre-treatment coping style is associated with therapeutic alliance: patients perceived to have an *avoidant* coping style appear less likely to form a good therapeutic alliance with their therapist, than those who are able to tolerate discussion about their problems. Whether it is this type of interaction that may determine therapeutic outcome is a further question. Although very little research has been conducted in this area, a recent paper has looked at client characteristics and how they relate to both the therapeutic alliance and, importantly to outcome.

Hardy, Cahill, Shapiro, Barkham, Rees and Macaskill (2001) examined the contribution of patient's interpersonal styles to treatment outcome for short term CBT for depression and the extent to which the therapeutic alliance mediated any relationship between client characteristics and treatment outcome. To investigate this, they used a sample of 24 depressed patients who received at least 12 sessions of cognitive therapy in a jointly managed health service and research clinic in England. Patients completed a pre-treatment measure to assess their interpersonal style, developed from the Inventory of Interpersonal Problems (Horowitz, Rosenberg, Baer, Ureno and Villasenor, 1988) and the Dysfunctional Attitudes Scale – A (Weissman & Beck, 1978). These scales categorised patients' interpersonal style as being either overinvolved or underinvolved. As with the Gaston et al (1988) study, therapeutic alliance was measured by the CALPAS. Patients also completed the Beck Depression Inventory (BDI, Beck, Steer and Garbin, 1988) before treatment and the BDI before each session and the CALPAS after each session.

The results indicated that the underinvolved interpersonal style significantly affected treatment outcome: patients who had rated themselves as highly avoidant of relationships showed less symptom improvement than those who rated themselves less avoidant and the impact of this was found to be mediated through the therapeutic alliance. Whilst the sample size was small, the treatment conducted in a fairly naturalistic setting and the therapist's training was intermediate, the authors argued that such limitations may have been expected to have weakened rather than strengthened the study's results as a small sample might have concealed effects of modest size and greater therapist expertise could have ironed out the impact of factors not specified in the cognitive therapy model. Although this study did not look specifically at patient coping style, there are some parallels between these results and those of Gaston et al (1988) in that patients who rated themselves as highly avoidant had a worse outcome than those who rate themselves as less avoidant. This study further indicates that client characteristics and therapeutic relationship factors are important determinants of treatment outcome.

1.8.4 Summary

Evidence from a number of psychotherapy outcome studies indicate that patients' pre-treatment coping style is associated with therapeutic outcome. More recent studies have suggested that the type of coping style a patient has, determines the quality of the therapeutic alliance. In turn, the relationship between patient coping style and therapeutic outcome is mediated through a good therapeutic alliance. This strongly indicates that investigation and knowledge of a patient's pre-therapy coping style is a fruitful area for further research in developing screening assessment methods for patient suitability for individual psychotherapy. And that by doing this we may be able to further our knowledge of the processes involved in favourable/unfavourable therapeutic outcomes.

However, in some of the studies that have been discussed, there are a number of limitations that question that validity of their findings. In many of the studies that cited coping style as a predictor of outcome, no comprehensive theoretical rationale for this had been stated. Similarly, many of the definitions of coping have been ambiguous. In addition, many of the studies have been conducted in highly controlled trials using manualised therapies, which are unlikely to generalise to typical NHS clinical psychology departments, which questions their generalisability. Each of these issues merit further discussion and should be addressed if serious

consideration is to be given to the possibility of using patient coping style to aid the selection procedure of patients suitable for individual psychotherapy.

1.9 Coping theory

1.9.1. Introduction

The ability to compare and generalise studies on patient coping style has been impaired by different terms used to describe coping and the different measures used to assess it. Most writers have used the term in an intuitive, everyday sense, relying on the context to make the meaning clear. As a consequence, coping has accrued a variety of meanings across the literature. However, in order to validate any research as being of clinical value, it must be found to have solid theoretical grounding with a rationale and methodology that permits both replication and generalization (Beutler, 1991). Therefore, in order to consider the use of coping style as a useful characteristic for investigation, a clarification of coping theory and rationale for its use in research is needed.

Coping is considered to be a multidimensional concept and has been defined as "the person's cognitive and behavioural efforts to manage the internal and external demands of the person-environment transaction, that is appraised as taxing or exceeding the person's resources" (Folkman, Lazurus, Gruen and DeLongis, 1986, pg: 1). Coping styles refer to hypothesised stable dispositions and patterns of responses that people use to deal with the demands placed upon them and involve a complex set of personality, attitudinal and cognitive factors (Moos and Schaefer, 1993). Three related perspectives are believed to have shaped current approaches to understanding the nature of coping responses: Evolutionary theory, which emphasised the importance of problem solving skills and self-efficacy to enhance individual and species survival; Psychoanalytic Theory where Freud use the term ego processes to denote cognitive mechanisms (that when expressed might involve behavioural components) whose main functions were defensive (to distort reality) and emotion-focused (to reduce tension); and Developmental Life Cycle Theory, based on Erikson's life stages development theory (1963) and which posits that personal coping strategies accrued during adolescence are integrated into the self-concept and shape the process of coping in adulthood.

There are two predominant ways of describing coping responses documented in the literature. The first classifies responses as either problem-focused (attempts to deal directly with the stressor) or emotion-focused (attempts to alleviate with the distress associated with the stressor). This is based on the transactional theory of coping formulated by Lazurus and Folkman (Lazarus & Folkman, 1984; Lazarus, 1991), which posits that the individual and environment remain in a dynamic feedback relationship. Events in the individual's environment are appraised by the individual and the coping responses an individual displays, either problem-focused or emotion-focused will be dependant on this appraisal. The authors of this theory emphasise the situational mutability of the processes of cognitive appraisal and coping undertaken by individuals in particular circumstances. However, more recently they have also admitted that despite their complex and dynamic nature, individuals' coping responses also reveal certain permanent and stable patterns (Wlodarczyk, 2001) which may be considered individual styles of coping.

The second method of classification identifies coping responses as either *approach*-based (directly resolving or conquering the stressor) or *avoidance*-based (attempting to either avoid thinking about the stressor or control the associated affect). This is based on the theory by Moos and Schaefer (1986; 1993) and posits that aspects of the environmental system (such as life stressors and social resources), the personal system (e.g.: ego development, self efficacy and cognitive style), characteristics of a focal life crises or stressor and the individuals' appraisal of this stressor, provide a context for the selection of coping responses. Although the specific selection of coping responses may vary according to stressor type, it has been recognised that most individuals appear to have a propensity to use either *approach* or *avoidance* based strategies (Moos and Schaefer, 1993).

Although considerable overlap between these two classification schemes exists in that most problem-focused coping is *approach*-based, and most emotion-focused coping is *avoidance*-based, the theories on which they are based are not entirely parallel frameworks. Some authors have criticised the conceptualisation of coping styles being either problem-focused or emotion-focused for being too broad and lacking in empirical evidence for support (Wong, Leung and So, 2001). In contrast, the concept of coping strategies as being *approach* or *avoidance* based appears to have a comprehensive background, which reflects the various theoretical perspective of coping and complex elements that appear to drive an individual to make use of a particular

coping style. This conceptualisation of coping responses appears in current favour in research studies (Sharkansky, King, King, Wolfe, Erikson and Stokes, 2000).

Studies that have investigated the impact of *approach* and *avoidance* coping have found consistently indicated that efforts to deal directly with the stressor (*approach*-based coping) tend to be associated with better mental health (e.g.: Florian, Mikulincer and Taubman, 1995), whereas attempts to alleviate the emotional distress associated with the stressor or efforts to avoid the object of stress (*avoidance*-based coping) are associated with poorer mental health (e.g.: Sharkensky et al, 2000, Holahan & Moos 1997, Wong et al, 2001).

1.9.2 Measuring Coping

A number of scales have been devised to measure individuals' coping strategies. Two of the most commonly used are:

COPE (Carver, Scheier and Weintraub, 1989)

This is a multidimensional self-administered coping inventory, which incorporates 13 distinct scales which were developed on theoretical grounds or chosen on the basis of research that demonstrated their role in facilitating or impeding coping in different contexts. The COPE can be used to assess situational coping (responses to a specific situation) or responses during a specific time period (typical responses to stressors).

Coping Responses Inventory (CRI, Moos, 1986)

Like the COPE, this is a self-report measure which assesses eight different types of coping responses to stressful circumstances, four of which are cognitive strategies and fours of which are behavioural strategies. To respond to the CRI, individuals select and describe a recent (focal) stressor, which they formally appraise on a set of 10 items. Their coping responses to this stressor are then rated on a four-point scale varying from "not at all" to "fairly often" to rate their reliance on each of the 48 coping items.

A criticism that has been directed towards some coping style measures in the past is that many of them ignore the fact that stressor type has an impact on a person's coping style. This criticism is

based on the belief that coping strategies are situation-specific and that people cope with different situations using different strategies, based in part on their appraisal of the stressor (Wong et al, 2001). Whilst such a belief may appear logical, as stated earlier that although the specifics of individuals' coping responses may vary when faced with different stressors, coping responses reveal certain permanent and stable patterns, which take the form of individual styles. Indeed research that has investigated the role of stressor on coping style has found that the variance in coping style according to stressor type is minimal and accounts for only about 3% (McCrae, 1982). Additionally, although the appraisal of the stressor has been found to account for more of the variance, this has also been found to be quite minimal at around 17% (stressors appraised as challenging typically predict the use of *approach* coping, whereas stressors appraised as threatening generally elicit *avoidance* coping - McCrae, 1984). These findings suggest that if the intricacies of a person's coping style in specific situations are ignored (i.e.: what the person actually does), the majority of people demonstrate a consistent similar type of response, either *approach* or *avoidant*, regardless of the actual stressor or how it is appraised. This is consistent with clinicians' observations that suggest that patients' coping styles are indeed stable intrinsic features of an individual, which are present regardless of the type of therapy offered to them or stressors facing them.

One other problem found in evaluating the effect of coping on psychological functioning is that higher levels of stress and have been associated with the use of more coping strategies of all types (Holahan and Moos, 1987). Some authors have addressed this by developing a measure of relative coping, indexed by the percentage of total coping strategies that are *approach*-based (Holaham and Moos, 1990), which further permits individual's coping styles to be categorized as either *approach* or *avoidance* based. The CRI has the advantage over the COPE in this respect, as it permits this type of analysis.

This theoretical review of coping illustrates the complexities of the definition and assessment of coping style. In particular, it has highlighted that it is not a straightforward concept and that "coping" does not refer to a single patient variable, or just the actions that a person does in response to a specific stressor, but is reflective of their internal cognitive style and how they perceive the world. Consequently, when assessing for coping style, the measure used should echo this.

Bearing this in mind, within the studies on coping that have already been discussed, whilst they may not have used the same terminology, there appear to be similarities in that many used concepts similar to that of *approach* and *avoidant* coping. For example, Simons et al (1985) found that individuals, who reported that they used a lot of self-controlling behaviours (*approach*) to cope with daily problems, benefited more from cognitive therapy than medication and a trend in the opposite direction was also found. It may therefore be useful to consider such studies as sharing some common themes, whilst acknowledging that they may not all be based on the same theoretical background.

2.1 Naturalistic Research

A small number of studies already discussed, have begun to examine patients' natural coping style in relation to therapeutic alliance and treatment outcome and there is some early evidence to suggest that knowledge of a patient's coping style pre-treatment may be a useful way in which to predict (and so select) patients who will engage and respond best to individual psychotherapy. However, much of this research has been conducted on specific diagnostic groups where interventions have been restricted to one highly manualised type of therapy and where therapists giving the treatments are highly trained. These conditions are not representative of general adult clinical psychology NHS settings, where patients often have multiple diagnoses, and do not receive a strict manualised version of therapy. It is therefore questionable whether these findings would generalize to such settings (Aveline, Shapiro, Parry and Freeman, 1995).
Furthermore, in recent years, there has been a major trend towards eclecticism or integration of diverse techniques and concepts into a broad, comprehensive and pragmatic approach that avoids strong allegiances to narrow theories or schools of thought (Bergin & Garfield, 1994). For example, a survey of 800 therapists in the USA found that 68% of respondents claimed to be eclectic in orientation, a number which is predicted to have grown since then (Jensen, Bergin and Greaves, 1990). Most of these therapists were found to base their therapeutic interventions on one particular theoretical orientation and to complement this with elements from other approaches. Accordingly, it has been strongly recommended that eclectic approaches be reflected in psychotherapy research in order to enhance ecological validity (Aveline et al, 1995).

Another difficulty of generalising strict clinical studies to typical NHS settings is their use of outcome measures, which are often much lengthier than those typically employed in general

practice. Indeed many of the outcome measures that have been used in psychotherapy outcome research studies have only been used in single research studies. Similarly, many of them often only look at changes in individual's symptom severity in a particular diagnosis. However, this ignores the fact that psychotherapy is an elaborate intervention targeting complex human problems, which affect the internal world of the individual and their family and friends. It is therefore important to also consider these when measuring the effectiveness of therapy. Outcome measures that only measure symptom reduction in a specific disorder, such as the BDI, do not reflect, or measure the complexity and heterogeneity of depression and the individual's total situation (Aveline et al, 1995). Indeed it has been proposed that in some cases, symptomatic improvement may be a poor measure of the benefit of treatment. For example, a patient can be found not improve symptomatically but have been helped not to commit suicide (Margison et al, 2000). Likewise, if a task of therapy is for an individual to face up to and perhaps terminate an abusive relationship as part of a long-term strategy to improve their mental health, this may increase the severity of their symptoms in the short-term and thus emerge on pure symptomatic measures as an unreliable indicator that therapy appears more harmful than useful. For these reasons, the use of outcome measures that consider and reflect the patient's overall well-being and functioning in addition to the measurement of their symptoms have been advocated. In the United Kingdom, the CORE has been developed as an outcome measure, which attempts to assess a much broader picture of psychological functioning.

Thus, more recently in the field of psychology outcome research there has been a move toward a more "naturalistic" approach in terms of both selection criteria and outcome measurement which permits the findings from research studies to be meaningfully applied to clinical practices. This study attempts to use such an approach to maximise the clinical relevance of the findings.

2.2 Main Aims

The main aim of the study was to investigate whether patients' pre-treatment coping style was associated with how they responded to therapy in a naturalistic setting. More specifically, the study aimed to investigate whether patients' pre-treatment approach coping style was associated with the formation of a good therapeutic alliance and whether patients' approach coping style was associated with therapeutic outcome. If the findings were to indicate that patients' pre-treatment approach coping style was associated with both therapeutic alliance and outcome, a

further aim of the study was to investigate if patients' approach coping style was mediated through a good therapeutic alliance in order to produce a favourable therapeutic outcome. A subsidiary aim of the study was to explore whether the coping style of psychotherapy patients differed from that of a non-clinical population.

2.3 Hypotheses

Hypotheses one, two, three and four

To test for mediation of the relationship between approach coping style and therapeutic outcome by the therapeutic alliance, the rationale defined by Baron and Kenny (1986) will be followed. First, the independent variable (approach coping style) should be associated with the dependant variable (therapeutic outcome); second, the independent variable (approach coping style) should be associated with the mediator variable (therapeutic alliance); and third, the mediator variable (therapeutic alliance) should be associated with the dependant variable (therapeutic outcome). When these associations have been established, the independent variable (approach coping style) should not be associated with the dependant variable (therapeutic outcome) after the mediator variable (therapeutic alliance) is controlled. For the purposes of this study each of these stages is considered as a separate hypothesis.

Hypothesis one

The relationship between patients' scores on the *approach* subscales of the Coping Responses Inventory and their therapeutic outcome (i.e.: changes in their CORE scores from pre-therapy to after six sessions) will be greater than the relationship between patients' scores on the *avoidant* subscales of the Coping Responses Inventory and their therapeutic outcome.

This hypothesis will be accepted if there is a significant positive relationship between one or more approach subscales of the Coping Responses Inventory measured pre-therapy and any subscales of the CORE inventory (when the difference between patients' CORE scores measured pre therapy and post six sessions is calculated) at the 0.05 level of significance.

The null hypothesis will be accepted if there are no significant positive relationships between any approach subscales of the Coping Responses Inventory measured pre-therapy and any

subscales of the CORE inventory (when the difference between CORE scores measured pre therapy and post six sessions is calculated) at the 0.05 level of significance, or if there is a positive significant relationship between more than one avoidant subscale of the Coping Responses Inventory measured pre-therapy and any subscale of the CORE inventory (when the difference between CORE scores measured pre therapy and post six sessions is calculated) at the 0.05 level of significance.

Hypothesis two

The relationship between patients' scores on the *approach* subscales of the Coping Responses Inventory and therapists' ratings of the therapeutic alliance will be greater than the relationship between patients' scores on the *avoidant* subscales of the Coping Responses Inventory and therapists' ratings of the therapeutic alliance.

This hypothesis will be accepted if there is a significant positive relationship between patients' scores on one or more approach subscales of the Coping Responses Inventory measured pre-therapy and therapist's ratings on any subscale of the CALPAS-T at the 0.05 level of significance.

The null hypothesis will be accepted if there are no significant positive relationships between patients' scores on any approach subscales of the Coping Responses Inventory measured pre-therapy and therapists' ratings on any subscales of the CALPAS-T at the 0.05 level of significance, or if there is a positive significant relationship between more than one avoidant subscale of the Coping Responses Inventory measured pre-therapy and any subscale of the CALPAS-T at the 0.05 level of significance.

Hypothesis three

There will be a significant positive relationship between therapists' rating of the therapeutic alliance and patients' therapeutic outcome.

This hypothesis will be accepted if there is a significant positive relationship between one or more subscales of the CALPAS-T and any subscale of the CORE inventory (when the difference

between patients' CORE scores measured pre therapy and post six sessions is calculated) at the 0.05 level of significance.

The null hypothesis will be accepted if there are no significant positive relationships between any subscales of the CALPAS-T and any subscales of the CORE inventory (when the difference between CORE scores measured pre therapy and post six sessions is calculated) at the 0.05 level of significance.

Hypothesis four

Any relationships between patients' *approach* coping style and their therapeutic outcome will be mediated by the therapeutic alliance.

This hypothesis will be accepted if:
i) A significant positive relationship is found between any approach subscale of the Coping Responses Inventory and any subscale of the CALPAS-T, and if a significant positive relationship is found between the same subscale(s) of the Coping Responses Inventory and any subscales of CORE inventory (when the difference between CORE scores measured pre therapy and post six sessions is calculated), and if a significant positive relationship is found between the same subscale(s) of the CALPAS-T and the same subscale(s) of the CORE inventory (when the difference between CORE scores measured pre therapy and post six sessions is calculated).
ii) When the above associations are found, no associations are found between any approach subscale of the Coping Responses Inventory and any subscale of the CORE (when the difference between CORE scores measured pre therapy and post six sessions is calculated), after therapeutic alliance (i.e.: all subscales of the CALPAS-T) are controlled.

The null hypothesis will be accepted if any of the above criteria are not fulfilled.

Hypothesis five

There will be no significant differences between patient's scores on the Coping Responses Inventory measured pre-therapy and after six sessions of therapy.

This hypothesis will be accepted if there are no significant differences between patient's scores on all subscales of the Coping Responses Inventory measured pre-therapy and after six sessions of therapy.

The null hypothesis will be accepted if there are any significant differences between patient's scores on all subscales of the Coping Responses Inventory measured pre-therapy and after six sessions of therapy.

Chapter 2: Method

3.1 Design

The study employed a naturalistic within-subjects design. Participants were asked to complete several measures at three discrete time points; the Coping Responses Inventory (Moos, 1986) and Clinical Outcomes in Routine Evaluation (CORE System Group, 1998) pre-therapy, The California Psychotherapy Alliance Scale-Patient version (Marmar, Gaston, Gallagher and Thompson 1987) after their third session of therapy; and to repeat the two pre-therapy measures after their sixth session of therapy. In addition, participants' psychologists were asked to complete The California Psychotherapy Alliance Scale-Therapist version (Marmar et al, 1987) after their third session of therapy and a brief questionnaire after the sixth session, to detail the participant's diagnosis and the type of therapy utilized. Qualitative information was also obtained from some participants and psychologists by way of semi-structured interviews.

3.2 Participants

3.2.1 Clinical Sample

All participants were recruited from a general adult Clinical Psychology waiting list. In accordance with the departmental policy, whenever an individual was referred, they were put on one of three waiting lists depending on where they lived: North, Central or South. The waiting list time between referral and first appointment for all waiting lists at the time of the study was approximately 7.5 months.

Whenever an individual reached the top of their list, they were asked if they still wished to be seen and to confirm this by completing a short form. This procedure was known locally as 'opting-in'. Thereafter, departmental policy stated that individuals who had 'opted in' were to be offered an initial appointment within three weeks. All individuals who opted into the department between January and May 2003 were invited to participate in the study.

Figures collected from the department over the six months prior to the study indicated that approximately 35 individuals were invited to opt in each month. Of these, approximately 26 (75%) opt in each month. Research has indicated that response rates to participate in research are approximately 40 % (Goyder, 1988). It was therefore estimated that approximately 10

patients would be recruited to the study per month, and that approximately 40 participants would be recruited over the course of the study. This figure was consistent with the number of participants required for statistical power to be reached in the study, as will be discussed later.

3.2.2 Exclusion Criteria

In-patients, individuals referred for neuropsychological testing, learning disability or psychosis were excluded from the study. This was to avoid having any participants taking part whose capacity to give informed consent may have been compromised. In addition, as the department only took referrals for adults aged between 18 and 65, individuals outwith this age range were automatically excluded.

3.2.2. Therapists and Type of Therapy

The department employed 14 Clinical Psychologists, 2 Counselling Psychologists, 1 second year Trainee Clinical Psychologist, 2 final year Trainee Clinical Psychologists and 3 Assistant Psychologists. All gave their consent to participate in the study.

As the study was designed to be naturalistic, the type of therapy and appointment frequency were not controlled. The typical length of each psychology appointment in the department was 60 minutes.

2.3.3 Non-Clinical Sample

A non-clinical sample was recruited to enable a comparison of scores with the clinical sample on the Coping Responses Inventory. They were recruited by way of a poster (see Appendix: 1) on a communal staff notice board in the same hospital where the study took place.

3.3 Measures

The measures used in this study were the Coping Responses Inventory (CRI, Moos, 1986), the Clinical Outcome in Routine Evaluation questionnaire (CORE, Systems Group, 1998) and the California Therapeutic Alliance Scales, Patient and Therapist versions (CALPAS, Marmar et al, 1987).

3.3.1 The Coping Responses Inventory-Adult (CRI) (Moos, 1986)

(A copy of this measure is in Appendix: 10)

Rationale for use

This inventory was used to measure individuals' coping styles for two main reasons. The first was that it had been developed for use on psychiatric patients and was therefore appropriate for use with the population in the study. The second reason was that it permitted the examination of both cognitive and behavioural coping strategies and the categorisation of individuals' responses to identify them as having either a predominantly *approach* or *avoidant* coping style. This makes for easy comparison of respondents' scores and allows the findings of the study to be compared with other studies that have found the concept of avoidance coping to be related to patients' therapeutic alliance and outcome (e.g.: Gaston et al, 1988). In contrast, although many other coping style inventories e.g.: COPE (Carver et al, 1989) investigate the various types of coping strategies an individual may have, they make no attempt to categorise them, which makes it difficult to conceptualise the respondents' coping style.

Whilst the Gaston et al (1988) study used the Daily Living Questionnaire (Moos et al, 1985) to measure *avoidance* coping, the CRI was chosen over this measure, as it specifically assesses individuals' coping style and was thus considered more appropriate. As the same author has developed both measures, they share a similar theoretical basis.

Content

The CRI consists of 48 items to measure individuals' coping responses to stressful life circumstances. The items comprise two categories, *approach* and *avoidance,* that assess the

extent of the respondents' reliance on approach and avoidant coping strategies. Each of these categories is composed of four subscales that assess two types of cognitive and behavioural coping strategies that respondents may use. Table 1 shows the eight subscales that comprise the CRI.

Table 1. The subscales of the Coping Responses Inventory

Category	Cognitive strategies	Behavioural Strategies
Approach	**Logical analysis** (Cognitive attempts to understand and prepare mentally for a stressor and its consequences)	**Seeking Support and information** (Behavioural attempts to seek information, guidance or support)
	Positive reappraisal (Cognitive attempts to construe and restructure a problem in a positive way while still accepting the reality of the situation)	**Taking problem-solving action** (Behavioural attempts to take action to deal directly with the problem)
Avoidance	**Cognitive avoidance** (Cognitive attempts to avoid thinking realistically about a problem)	**Seeking alternative rewards** (Behavioural attempts to get involved in substitute activities and create new sources of satisfaction)
	Acceptance or resignation (Cognitive attempts to react to the problem by accepting it)	**Emotional discharge** (Behavioural attempts to reduce tension by expressing negative feelings, e.g.: crying)

Administration

The CRI is a self-report measures that is suitable for use with healthy adults, psychiatric and substance abuse patients aged 18 and over and takes approximately 15 minutes or less to complete. To respond to the CRI, respondents are asked to identify the stressor that they consider has caused them the most distress over the past twelve months. In Part One of the inventory, they appraise how they viewed the stressor, e.g.: whether they perceived it as a threat

or a challenge. Part one is not scored though can provide useful qualitative information about the respondent's appraisal of the stressor.

A minor adaption was made to part one of the CRI for the study. Instead of having participants write down exactly what their stressor was, they were asked to select the type of stressor they had from a choice of nine, taken from a list established from previous responses to the CRI in a study by Moos & Moos (1992). This was to make the inventory less threatening to participants with a potentially avoidant coping style. The adaption was discussed with the CRI's author, via e-mail (R. Moos, personal communication, 18.11.02) who stated that this would be unlikely to affect the validity of the scale as stressor type is not included in the formal analysis of coping response and also as research had found stressor type to account for only a small percentage of the variance in individuals' responses to the inventory. Appendix: 2 shows the inventory in its original form.

In Part Two of the inventory, respondents are asked to rate strategies that they used to cope with the stressor, using a four-point Likert scale ranging from 0 (not at all) to 4 (fairly often). From these responses, the respondent's coping style can be established. A copy of the scoring procedure for the CRI is in Appendix: 3.

Psychometric properties

The CRI was developed for use from field trials with alcoholic, depressed and arthritic patients, problem drinkers and normal controls. It is reported to have moderately high internal consistency (alpha = 0.65 for women and 0.67 for men) and that the eight subscales are moderately positively intercorrelated (rs = 0.29 for men and 0.25 for women). The scales have been found to be only minimally associated with sociodemographic characteristics such as age, education and marital status: better educated respondents were somewhat less likely to rely on avoidance coping responses, however the relationship is relatively low with correlations under .20. Data from the field trials (not reported in the manual) are reported to indicate that the scales are only minimally correlated with social desirability (r = 0.13 for the eight subscales).

More than 90% of the people in the field trials participated in a 12-month follow up. Over this time period their coping responses were found to remain moderately stable over time (r = 0.43

for women and r = 0.45 for men). This indicates that individual's propensities for coping, as measured on the CRI, may remain moderately stable over long intervals despite the variety of stressful circumstances they encounter (Moos, 1992).

3.3.2 Clinical Outcomes in Routine Evaluation (CORE, Core Systems Group, 1998)

(A copy of this measure is in Appendix: 16)

Rationale for use

The CORE was chosen to measure psychological distress in participants' pre-therapy and changes in their levels of psychological distress after 6 sessions of therapy, as it had been developed specifically for use in mental health services in the UK and for repeated use over time. In contrast to many other outcome measures, which could have been used instead such as the BDI (Beck, Steer and Garbin, 1988) or General Health Questionnaire (Goldberg, 1981), the CORE had the advantage of considering the respondent's general functioning, rather than the sole examination of their symptoms in a particular diagnosis. Thus it appeared a more useful outcome measure for use in naturalistic research.

Content

The CORE was developed for use as a national standardised outcome measure to allow comparisons between mental health services. It was devised from a nationwide survey about the factors clinicians considered to be important in assessments and was designed for use with patients with a variety of problems. It is comprised of 34 items that assess four core components of patients' distress: Subjective Well-Being (4 items), Other Problems (i.e.: symptomatology) (12 items), Functioning (12 items) and Risk (6 items). A composite score of the sum of these subscales is used to reflect a Global measure of the respondents' overall level of psychological distress. The CORE has been deemed suitable for use as an initial screening tool and outcome measure and is used in many NHS mental health departments in the UK.

Administration

The CORE is a self-report measure and respondents are asked to read each of the items and to base their responses on a five point Likert scale ranging from 0 (not at all) to 4 (all or most of the

time), to reflect how they have felt over the past week. A copy of the scoring procedure is in Appendix: 3.

Psychometric properties and normative data

Research that has examined responses of a non-clinical population in comparison with a clinical population has found that the differences between clinical and non-clinical populations were highly significant on all subscales (p=<0.0005). In a non-clinical population, all domains, with the exception of risk obtained alphas over and around 0.70, indicating that the items within the specified dimension were internally consistent (i.e.: they are measuring the same concept).

3.3.3 The California Psychotherapy Alliance Scales (CALPAS, Marmar, Gaston, Gallagher and Thomson, 1987)

(A copy of the CALPAS-T is in Appendix: 15 and a copy of the CALPAS-P is in Appendix: 14)

Rationale for use

The CALPAS therapist and patient alliance scales were chosen for use in the study as they have a strong theoretical and research background (Gaston, 1991) and have been recommended for use in psychotherapy research above other alliance measures, by the authors of a meta-analysis into therapeutic alliance (Martin et al, 2000). In addition, as other researchers have also used these scales to investigate similar issues, to the present study, (Gaston et al, 1988; Hardy et al, 2001) their use would allow direct comparisons to be made with them.

Content

The CALPAS scales permit the alliance to be assessed from three points of view; the patient, the therapist and clinical raters, though only the therapist and patient versions were used in the study. All versions of the CALPAS are composed of four scales, which address the separate contributions of patient and therapist to the alliance, as well as their mutual agreement on the working strategies and goals to adopt in therapy. These are shown in Table 2.

Table 2. The subscales of the CALPAS

Subscale	Aspect of alliance assessed
Patient Working Capacity (PWC)	Reflects the patients' ability to work actively with their therapist
Patient Commitment (PC)	Reflects the patient's attitude and commitment to therapy
Working Strategy Consensus (WSC)	Reflects the level of agreement between patient and therapist as to how therapy should proceed
Therapist Understanding and Involvement (TUI)	Reflects components of a therapist's involvement in therapy
Total Alliance Score	Composite score of the above

Further interpretative information about these subscales is in Appendix: 4.

Patient CALPAS (CALPAS-P)

There are two versions of the CALPAS-P, a long form containing 24 items and a short form, which contains 12 items. The short form of the CALPAS-P was chosen for use in this study as it was considered to be more acceptable for completion by people who might be avoidant of lengthy discussion of their emotions. It is a self-report measure, and each item is rated on a 7 point Likert scale. Each of the four alliance subscales contains three items (see Appendix: 14).

Therapist CALPAS (CALPAS-T)

The therapist version (CALPAS-T) contains 24 items, which closely parallel those of the CALPAS-P. It is a self-report measure and each of the four alliance scales contains 6 items that are rated on a 7-point Likert scale (see Appendix: 15).

Both patient and therapist versions of the CALPAS have been designed for completion immediately after a therapy session and both take approximately 5-10 minutes to complete. The scoring procedures for both CALPAS-P and CALPAS-T are in Appendix: 3.

3.3.4 End of Study Information

At the end of six sessions, participants' psychologists were asked to complete a short form to ascertain: the type of therapy used, the participants' ICD-10 diagnosis and the participants' pre-therapy CORE scores. A copy of this form is in Appendix: 5.

3.3.5 Semi-Structured Interviews

Semi-structured interviews were conducted with all of the psychologists who had had more than one patient in the study. A copy of the questions on which the interviews were based is in Appendix: 6.

3.4 Procedure

3.4.1 Ethical approval

The research proposal was discussed with senior members of the department where the study was conducted in November 2002. A full research proposal was submitted to the local Ethics committee in December 2002 for the ethics committee meeting in January 2003. At this meeting ethical approval was granted (see Appendix: 7).

Once ethical consent had been granted, all psychologists in the department were sent an information sheet to inform them about the study and were asked to complete a consent form if they consented to participate (see Appendix: 8). They were also given the opportunity to view the measures for use in the study and to ask the researcher any questions.

As the aim of the study was to investigate whether pre-therapy coping style affected therapeutic alliance and outcome, a decision was made to measure therapeutic alliance after three sessions of therapy. This was based on (unpublished) advice from one of the authors of the Hardy et al (2001) study (G. Hardy, personal communication, 24.11. 02) who stated that in her research, assessment of the alliance after the third session provided a reliable and stable measure of the alliance throughout therapy. This advice was supported in the literature by findings that measurement of the alliance early in therapy is believed to be a better predictor of therapeutic success than the strength of the alliance later in therapy (Hovarth & Symonds, 1991).

Due to the time constraints of the study, it was not possible to measure therapeutic outcome at the end of each participants' therapy. It was therefore decided to obtain a measure of therapeutic change after six sessions. The rationale for this decision was based on the findings of a pilot study conducted to evaluate a waiting list initiative that had been carried out in the same department as the present study. These findings provided evidence that some patients can make significant and lasting gains when given a maximum of six sessions of therapy (for further information, see Appendix: 9). This time estimation was expected to fit with the time frame of the study; each participant was expected to be seen either on a weekly or fortnightly basis,

therefore the time from the participant's first session to their sixth would be approximately 2.5 months.

The following sections describe participant recruitment, and how measurements of therapeutic alliance and outcome were obtained.

3.4.2 Phase One; Participant Recruitment

Clinical sample

[A copy of the research pack used to recruit participants is in Appendix: 10]

As aforementioned, patients who reach the top of their waiting list are asked to 'opt in' as part of normal departmental policy. Patients who 'opt in' are then sent an appointment letter and asked to complete two questionnaires as part of routine practice; the CORE and the Hospital Anxiety Depression Scale (Zigmond and Snaith, 1983) to obtain a pre-therapy measure of their psychological distress.

Once ethical approval had been granted, waiting lists were checked weekly and between January and May 2003 all patients who had 'opted in' to see a psychologist were sent research packs (independently of their appointment letter) to invite them to participate in the study. These consisted of: an invitation letter explaining the nature of the study, a CRI, a consent form and a pre-paid envelope (see Appendix: 10). The amount of information the participants were asked to give for the study was limited as to encourage patients with an potentially avoidant coping style to participate.

All packs were pre-coded prior to being sent out, with each individual invited to participate assigned a code number. This was to allow individuals to respond anonymously and to remove any concerns they might have about being identified. Participants' codes remained the same on all inventories given to them throughout the study.

Individuals who wished to participate were asked to return the consent form (signed) and the completed CRI in the pre-paid envelope. Individuals who agreed to participate were then sent a standard letter, (again without stating their name) to confirm their participation (see Appendix 11).

Where participants had given their consent, their GP was sent a letter to inform them of their participation (see Appendix: 12). Finally, details of each participant's psychologist and date of their first appointment were taking from the waiting list file.

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Non-clinical sample

A non-clinical sample was recruited by way of a poster (see Appendix: 1) on a communal staff notice board. Once individuals contacted the researcher to volunteer to take part in the study, they were sent a research pack that consisted of: a letter about the study, a copy of the Coping Responses Inventory and a pre-paid envelope (see appendix: 13).

3.4.3 Phase Two; Obtaining Therapeutic Alliance Measures

[Copies of the participant and psychologist packs used to obtain measures of the therapeutic alliance are in Appendices: 14 and 15]

Once the participant started therapy, the researcher kept track of the number and dates of appointments they attended through weekly checks of the relevant psychologist's diary, held by their secretary. Up until the third session, psychologists were blind as to which of their patients were participating in the study. This was to ensure that the study was reflecting normal practice and to try and prevent psychologists behaving in an unnatural manner in an attempt to influence the alliance. This was felt necessary as psychologists not being blind to participants' involvement had been a criticism of the Gaston et al (1988) study.

When the participant's third session was approaching, the researcher sent the psychologist a pack to inform them that their patient had been participating in the research and to ask them to complete the therapeutic alliance scale immediately after their third session. At this time the researcher also posted the participant their therapeutic alliance measure for completion. The information sent to the participant consisted of: a letter to inform patients to complete the alliance measure as part of the study, the patient short form of the CALPAS-P and a pre-paid envelope (See Appendices 14 and 15).

3.4.4 Phase Three; Obtaining Measures of Therapeutic Change and Information from Psychologists

[Copies of the letter used to obtain information from psychologists is in Appendix: 5 and a copy of the pack sent to participants' is in Appendix: 16.]

The dates of participants' subsequent sessions were noted. Final forms were given to psychologists and sent to participants after their sixth session of therapy. The psychologist's pack consisted of a brief letter explaining that their patient had reached the end point in the study and to ask them to provide information on: their patient's ICD-10 diagnosis, the type of therapy they did with their patient and their patient's pre-therapy CORE scores (see Appendix: 5). Participants' packs consisted of: the Coping Responses Inventory, the CORE questionnaire and a pre-paid envelope (see Appendix: 16).

Participants were asked to repeat the Coping Responses Inventory to ascertain whether there had been any significant changes in their coping style, in comparison to pre-therapy. To assess this, the inventory items remained the same. However, instead of asking participants to think of a new stressor, participants were reminded of the type of stressor they had initially identified and were asked to rate how they would now cope with this if it were still occurring or if it occurred again.

Any participants who had not reached their third or sixth session of therapy at the end of data collection (June 30th 2003) were sent a letter to thank them for their participation and to inform them that the study had ended (see Appendix: 17).

Once questionnaires were returned to the researcher, they were scored according to the relevant scoring criteria (see appendix: 3) and logged onto a database. In accordance with the Data Protection Act (1998) participants' names were not entered into the computer, only the codes that had already been assigned were used to identify them.

3.4.5 Phase four; Obtaining Qualitative Information from Psychologists and Participants

In addition to the quantitative information obtained from the psychologists in the study, short semi-structured interviews (see Appendix: 6) were conducted with some of them to obtain qualitative information about their experience of participating in the study. One clinical participant also volunteered to be interviewed about their experience of taking part in the study.

3.5 Ethical implications

Research in the area of patient suitability for individual psychotherapy raises some ethical issues. While it has already been recognised that not all patients who receive psychotherapy benefit to the same degree, and that patient characteristics may be a factor in this, to use patient characteristics as criteria for accepting or rejecting patients from receiving individual psychotherapy would be extremely unethical. Psychotherapy and human psychopathology are highly complex and with over a hundred psychotherapies in use with adults and many levels of psychological assistance available, the idea of measuring a single personality characteristic to take all of these variables into account to assess a patient's suitability for individual psychotherapy would be highly questionable. Rather, the aim of investigating whether patient coping style plays a role in the formation of the therapeutic alliance and therapeutic outcome is not to establish strict inclusion/exclusion criteria for individuals who may or may not receive psychotherapy but to aid psychologists in their assessments as to which patients may benefit from individual psychotherapy.

By knowing this, psychologists may be helped to put limited clinical time resources to best use. For example, similar to the tiered model proposed by the NHS Executive, many psychologists already offer interventions at various levels ranging from Primary care to Tertiary care within the health care system. If psychologists were to be made aware that a patient referred at a Primary care level may have difficulties engaging in discussion about their difficulties, the psychologist could be prepared to include more self-help information in their intervention, or to offer a psychoeducational group as an alternative to individual therapy (if available). This could help the patient to obtain maximum psychological assistance, in an appropriate format, in the time available. Thus by using a systematic screening procedure, psychologists can be aided to make informed decisions about appropriate psychological interventions for each patient, rather than assume that all patients would equally benefit from the same type of psychological intervention.

3.6 Statistical Power

In the absence of previous data to estimate effect size, the number of participants required to meet statistical power was determined from power tables from Clark-Carter (2001), based on

Cohen's (1991) recommendations of expecting to detect a medium effect size 0.5 and taking power to be 0.8.

As the main analyses were to be correlations, the number of participants needed to achieve power was calculated from power tables for a two-tailed Pearson's Product Moment Correlation (Clark Carter, 2001). This indicated that in order to detect a statistically significant difference ($\alpha = 0.05$) with power of 0.8, 30 subjects would be required.

3.7 Statistical analyses

In accordance with the recommendation of Clark-Carter (2001), the level accepted for statistical significance for all statistical analyses conducted will be $\alpha = 0.05$. This means that in the statistical analyses, there will be a 5% probability of making a type one error. However, it should also be emphasised that as the experimental design involves the testing of five hypotheses, the likelihood of probable type one errors may be inflated due to multi-hypotheses.

The statistical analyses used to test each experimental hypothesis will be as follows:

Hypothesis One

To test whether the relationship between participants' scores on the approach subscales of the Coping Responses Inventory and their therapeutic outcome is greater than the relationship between participants' scores on the avoidant subscales of the inventory and their therapeutic outcome, two tailed Wilcoxon signed rank tests will be carried on participants' CORE scores from pre-therapy to post six sessions to see if they are significantly different. The difference between participants' pre-therapy and post six sessions CORE scores will then be calculated to obtain a measure of participants' therapeutic outcome. Finally, two-tailed Spearman's rank correlations will be carried out between participants' pre-therapy scores on the Coping Responses Inventory and the changes in participants' CORE scores from pre-therapy to post six sessions.

Hypothesis Two

To investigate whether there are any relationships between participants' pre-therapy approach coping style and therapeutic alliance, two-tailed Spearman's rank correlations will be carried out between all subscales of the Coping Responses Inventory (administered pre-therapy) and all subscales of the CALPAS-T.

Hypothesis Three

To investigate whether there are any relationships between participants' therapeutic alliance and therapeutic outcome, two-tailed Spearman's rank correlations will be carried out between all subscales of the CALPAS-T and the changes in participants' scores on all subscales of the CORE from pre-therapy to after six sessions of therapy.

Hypothesis Four

To investigate whether there are there is a mediating relationship by the therapeutic alliance between participants' pre-therapy coping style and their therapeutic outcome, the procedure described in the introduction section will be followed; should significant positive correlations be found in the three preceding hypotheses, regression analyses will be conducted to examine the extent of the therapeutic alliance as a mediator between participant coping style and therapeutic outcome after six sessions.

Hypothesis Five

To investigate whether participant coping style remains the same after six sessions of therapy, two-tailed Wilcoxon signed rank tests will be carried out between participants' scores on the Coping Responses Inventory obtained pre-therapy and after six sessions of therapy to see if there are any significant differences.

These experimental hypotheses will be accepted or rejected on the basis of the pre-defined criteria outlined on page 35 of the Introduction section.

Chapter 3: Results

This section is divided into four parts. Part one is an investigation of demographic information pertaining to the participants and psychologists who took part in the study, part two is exploratory data analysis, part three is the investigation of the experimental hypotheses and part four is a report of qualitative information obtained from some of the psychologists and participants who took part. All statistical tests conducted on the data were performed using SPSS, version 10.

4. 1 Part one: Demographic Information

4.1.1 Participants

Between January and May 2003, 101 research packs were sent out to patients who opted in to see a psychologist. 41 patients agreed to take part in the study, a response rate of 40.5%. Table 3 shows the number of participants recruited each month.

Table 3. The number of participants recruited each month

Month	Number of packs sent (%)	Number of participants recruited (%)
February	36 (35.6)	21 (51.3)
March	28 (27.9)	6 (14.6)
April	16 (15.8)	4 (9.7)
May	21 (20.7)	10 (24.4)
Total	**101 (100)**	**41 (100)**

Table 4 shows the available demographic information on this cohort.

Table 4. Demographic information pertaining to the participants

Geographical region	34% (N = 14) of participants were from North sector 39% (N = 16) of participants were from Central sector 27% (N = 11) of participants were from South sector
Gender	39% Male (N = 16) 61% Female (N = 25)
Age	Mean = 37.63 years SD = 11.82 Range = 18-61 years

Table 4 indicates that participants were fairly normal distributed in age and gender, given that more women than men typically present to clinical psychology departments. The therapy status of the participants at the end of data collection (30/6/03) is described in Table 5.

Table 5. The therapy status of participants at the end of data collection

Status of therapy	Number (%)
Reached 3 – 5 sessions	13 (31.7)
Reached 6 sessions	13 (31.7)
Not reached 3 sessions	5 (12.1)
Did not attend first session	4 (9.7)
Dropped out of therapy (before 3rd session)	5 (12.1)
Seen for assessment only (1 session)	1 (2.4)
Total	41

Table 5 indicates that despite the majority of participants being recruited by March, not all participants had had six sessions of therapy by the end of data collection. This was unexpected, as initial predictions had estimated that most participants would have reached six sessions by the end of the study. An investigation of why this had occurred indicated that a backlog of opt-ins in one sector over the course of the study had delayed the start time of therapy for several participants. For example, although six participants in this sector agreed in February to take part

in the study, two of these did not receive their first appointment until April and four did not receive their first appointment until May. (The backlog also affected other participants in this sector, though not to the same extent.) This delay was unexpected as to opt in patients and not to offer them an initial appointment within three weeks was contrary to departmental policy.

The frequency of appointments for participants who had had three appointments is shown in Table 6 and indicates that the median length of time between first and third appointment was 28 days which was consistent with initial predictions. However, the range was from 11 to 96 days, which was a larger variation in the number of days between participants' appointments than had been predicted.

Table 6. The frequency of participants' appointments

	Number of Days
Median	28
Minimum	11
Maximum	96
Inter-quartile range: 25	20.75
75	34.25

The *non-clinical* participants are considered in section: 3.

4.1.2 Psychologists

Table 7 describes the psychologists who were involved in the study.

Table 7. Description of the psychologists involved in the study

Number of psychologists	9 Clinical Psychologists 1 Counselling Psychologist 1 Assistant Psychologist 3 Trainee Clinical Psychologists (1 in second year, 2 in third year)
Gender	3 Male 11 Female
Number of years qualified (excluding trainees and assistants)	0.5-3 years = 3 Clinical Psychologists 6-10 years = 3 Clinical Psychologists 14-19 years = 2 Clinical Psychologists, 1 Counselling Psychologist 24 years = 1 Clinical Psychologist
Type of psychologist the participants saw	67 % (N = 28) saw a Clinical Psychologist 17% (N = 7) saw a Counselling Psychologist 13 % (N = 5) saw a Trainee Clinical Psychologist 3% (N = 1) saw an Assistant Psychologist

A survey of the department indicated that the majority of these psychologists had received formal training (or in the case of assistants and trainees were receiving training) in Cognitive Behaviour Therapy (CBT). For all of the clinical psychologists, this was their usual and preferred therapeutic approach, though they stated that they sometimes used techniques from other approaches. The counselling psychologist described their approach as Integrative, combining elements of CBT, Psychodynamic Psychotherapy and Interpersonal therapy. These descriptions were consistent with the eclectic approach reported to be favoured by many psychologists (Jensen et al, 1990).

4.2 Part two; Exploratory Data Analysis

4.2.1 Diagnoses

Figure 1. The primary diagnoses of the participants

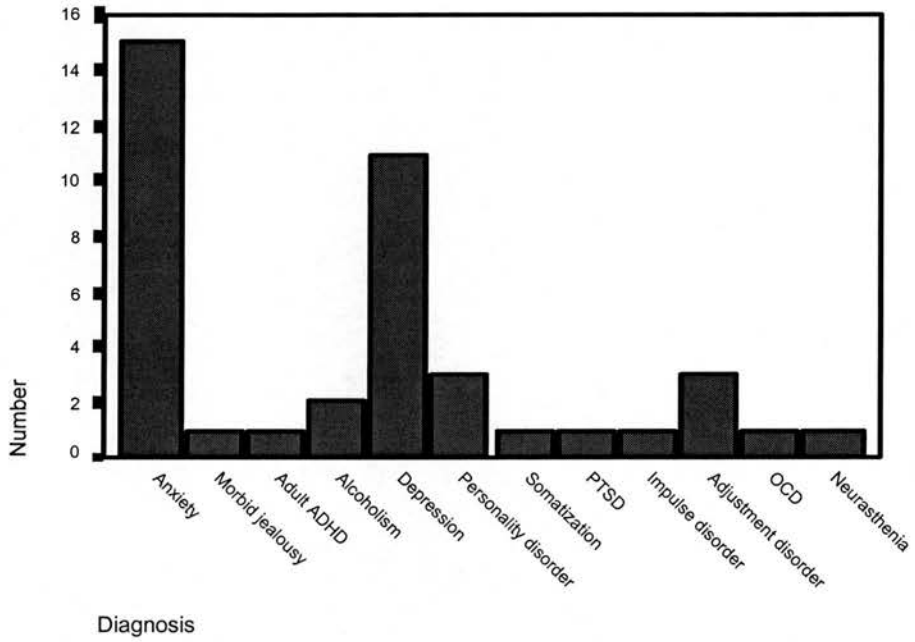


Figure 1 above indicates that the most common diagnosis was anxiety disorder (36.5%), followed by depression (26.8%).

4.2.2 Pre therapy CORE scores

Pre-therapy CORE scores were available for 29 participants, as 12 participants did not return them prior to the start of therapy. Table 8 shows participants' pre-therapy CORE scores.

Table 8. Participants' pre-therapy CORE scores

Category	Median	Minimum	Maximum	Inter quartile range	
				25	75
Well-being	10	3	16	10	12
Functioning	24	5	44	15.48	31.5
Risk	3	0	21	3	6
Other problems	26.04	6	47	17.40	36
Global (total)	61.88	22	121	43.86	82.45

(Histograms to illustrate these distributions are in Appendix: 18)

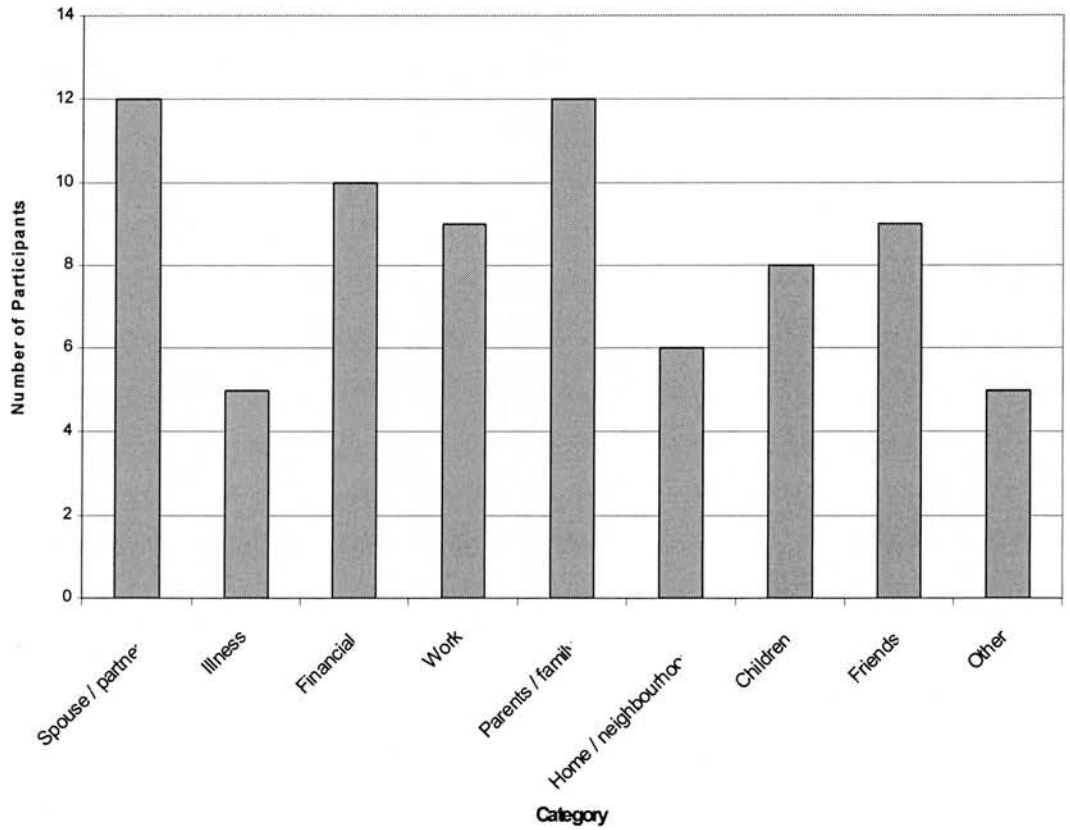
As can be seen from Table 8, on most subscales of the CORE, participants' scores were fairly normally distributed. The exception was the Risk category, which was positively skewed. A low prevalence of risky behaviours and suicidal ideation is usual for the majority of patients who attend clinical psychology appointments, so this finding was considered to be normal.

4.2.3 Pre therapy Coping Responses Inventory

Part i: Stressor

The types of stressor the participants considered to have been most stressful over the past 12 months are shown in Figure 2.

Figure 2. The types of stressor participants reported
(NB 10 participants marked more than one category)



As can be seen from Figure 2, the most stressful stressors reported were spouse/partner (29.2%) and parents/family (29.2%). This indicates that individuals closest to the participant appear to contribute most to their stress.

Table 9 shows how the *clinical* group appraised their stressor and indicates most participants considered their stressor to be novel and to be a threat.

Table 9. Participants' appraisal of their stressor.

Appraisal	Number (%)
Novel problem	31 (76)
Considered a threat	25 (61)
Considered a challenge	5 (12)
Considered both a threat and a challenge	7 (17)
Not considered a threat or a challenge	4 (10)
Caused by something they did	3 (7)
Caused by something someone else did	19 (46)
Caused by something that they and others did	8 (20)
Not caused by something they or others did	10 (27)
Problem still ongoing	32 (78)
Problem now resolved	32 (78)

Part ii: Coping responses

Table 10 shows the distribution of participants' scores on the subscales of the Coping Responses Inventory

Table 10. Participants' scores on the Coping Responses Inventory

Category	Subscale	Median	Minimum	Maximum	Inter quartile range	
					25	75
Approach	Logical Analysis	47	24	65	38	55
	Positive Appraisal	42	27	62	34	53
	Seeking Support	49	29	67	39	55.5
	Problem Solving	41	27	67	36	52
	Total for category	182	126	233	157	205
Avoidance	Cognitive Avoidance	60	41	76	53	67
	Acceptance	56	35	70	49.50	61
	Alternative Rewards	48	37	62	42	53
	Emotional Discharge	63	39	94	52.5	75
	Total for category	226	159	271	210	244

(Histograms to illustrate these distributions are in Appendix: 19)

As can be seen from Table 10, participants' scores were fairly normally distributed. In addition, the majority of participants had predominantly avoidant coping styles, as indicated by higher scores.

2-tailed Spearman's rank correlations were carried out to investigate the associations between subscales of the inventory, as shown in Table 11.

Table. 11 2-tailed Spearman's rank correlations on all subscales of The Coping Responses Inventory

	Log. Anal	Pos. Reap	Seek Supp	Prob Solv.	App Total	Cog. Avo.	Acc.	Alt. Rew.	Emo. Dis.	Avoid. Total
Logical Analysis	1.0	**0.52** **	**0.41** **	**0.5** **	**0.77** **	0.08	0.29	0.17	0.29	**0.35** *
Positive Reappraisal	**0.53** **	1.0	**0.35** *	**0.62** **	**0.77** **	0.10	0.13	0.25	0.27	0.26
Seeking Support	**042** **	**0.35** *	1.0	**0.61** **	**0.72** **	0.15	0.07	**0.43** **	**0.37** *	**0.41** **
Problem Solving	**051** **	**0.62** **	**0.61** **	1.0	**0.86** **	-0.03	0.03	**0.39** *	0.17	0.18
Approach Total	**0.77** **	**0.77** **	**0.72** **	**0.86** **	1.0	0.06	0.15	**0.37** *	**0.34** *	**0.38** *
Cognitive Avoidance	0.08	0.10	0.01	-0.03	0.06	1.0	0.25	0.21	**0.33** *	**0.62** **
Acceptance	0.29	0.13	0.07	0.03	0.15	0.25	1.0	0.18	0.25	**0.56** **
Alternative Rewards	0.17	0.25	**0.43** **	**0.39** *	**0.37** *	0.21	0.18	1.0	0.21	**0.48** **
Emotional Discharge	0.29	0.27	**0.37** *	0.17	**0.34** *	**0.33** *	0.25	0.21	1.0	**0.77** **
Avoidance Total	**0.35** *	0.69	**0.41** **	0.18	**0.38** *	**0.62** **	**0.56** **	**0.48** **	**0.77** **	1.0

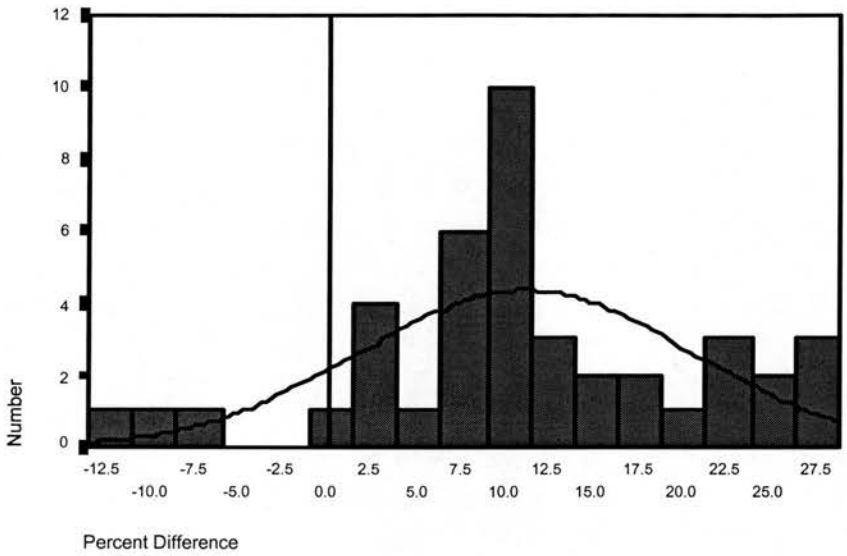
* Significant at the 0.05 level, ** Significant at the 0.01 level

As can be seen from Table 11, the majority of subscales in each category correlated significantly with each other. As *approach* coping and *avoidance* coping are theoretically opposed, it was unsurprising to find no significant correlations between the subscales of Logical Analysis and Cognitive Avoidance, or Positive Reappraisal and Acceptance. The small significant associations found between Logical Analysis and Total *Avoidance* scores (rs = 0.35), Seeking Support and Total *Avoidance* scores (rs = 0.41), and Total *Avoidance* scores and Total *Approach* scores (rs = 0.35) may have been due to the fact that overall, participants' had higher Total *Avoidance* scores than *Approach.*

It was unexpected to find significant associations between the behavioural *avoidance* coping strategies, Alternative Rewards and Emotional Discharge with the behavioural *approach* coping strategy of Seeking Support (rs = 0.43; rs = 0.37) and Total *Approach* score (rs = 0.37; rs = 0.34) and that Alternative Rewards also correlated significantly with the Problem-solving *approach* subscale (rs = 0.39).

A difficulty when evaluating and comparing coping styles among individuals is that higher levels of stress and symptomatology have been associated with the use of more coping strategies of all types (Holahan & Moos, 1987). This can make comparison of coping scores quite difficult. However, a number of authors have addressed this issue by using a measure of relative coping, indexed by the percentage of total coping strategies used that are *approach / avoidance* based (e.g.: Sharkensky, 2000). For that reason, participants' scores on each category - *approach* and *avoidance* - were converted into percentages and the difference between these further calculated to ascertain how dependant participants were on *approach* and *avoidance* coping strategies. The results are shown in Figure 3 and Table 12.

Figure 3. The distribution of percentage differences between participants' *avoidance* and *approach* scores



(NB Positive scores indicate that participants' had a higher reliance on *avoidance* coping strategies than *approach* coping strategies and a negative score indicates the reverse).

Table 12. The distribution of percentages differences between participants *avoidance* and *approach* scores.

Median	10.03
Minimum	-13.11
Maximum	26.11
Inter-quartile range: 25	6.8
75	16.9

As can be seen from Figure 3 and Table 12, participants' percentage index scores were fairly normally distributed around a median value of 10. Participants' also had a greater reliance on *avoidance* coping strategies than *approach* ones.

4.2.4 Therapeutic Alliance Measures

The psychologists' therapeutic alliance ratings are reported in Table 13 and the participants' alliance ratings are reported in Table 14.

Table 13. Therapist alliance measures (N = 26)

Category	Median	Minimum	Maximum	Inter quartile range	
				25	75
Patient Working Capacity	30	8	38	18.25	33
Patient Commitment	30	9	39	25.5	35
Working Strategy Consensus	28.5	12	36	22.75	32
Therapist Understanding and Involvement	32	17	39	28.75	38
Total	121	46	147	95.5	137.5

(Histograms to illustrate these distributions are in Appendix: 20)

Table 14. Patient Alliance Measures (N = 22, 4 participants did not return alliance measures)

Category	Median	Minimum	Maximum	Inter quartile range	
				25	75
Patient Working Capacity	17	9	21	13	20
Patient Commitment	19	12	21	15.25	21
Working Strategy Consensus	15.5	6	21	13	20
Therapist Understanding and Involvement	17	5	21	15	20
Total	68.5	43	84	57.5	76

(Histograms to illustrate these distributions are in Appendix: 21)

As can be seen from Tables 13 and 14, most subscales of the both psychologists' and participants' measurements of the therapeutic alliance were fairly normally distributed. The exceptions were the psychologists' scores on the Therapist Understanding and Involvement subscale and the Total Therapeutic Alliance subscale which were both negatively skewed towards lower values. From interviews with the psychologists, it appears that this may have happened because they considered themselves as 'very understanding' and so rated themselves quite highly on the Therapist Understanding and Involvement subscale. This in turn is likely to have inflated the Total Alliance scores.

4.2.5 Measures obtained after six sessions

Note that although 13 participants completed six sessions of therapy, three participants did not return any data after their sixth session, one did not return their Coping Responses Inventory after their sixth session and another did not return a CORE.

4.2.6 Coping Responses Inventory

Tables 15 and 16 show participants' scores on the Coping Responses Inventory after six sessions of therapy.

Table 15. The distribution of participants' scores on the Coping Responses Inventory after six sessions (N = 10)

Category	Subscale	Median	Minimum	Maximum	Inter quartile range	
					25	75
Approach	Logical Analysis	42	27	55	36.25	52
	Positive Appraisal	42.5	31	65	33.25	54.25
	Seeking Support	51.5	39	64	42	59.5
	Problem Solving	44	29	62	35.5	53.25
	Total for category	180	139	233	155.5	207.5
Avoidance	Cognitive Avoidance	54	39	69	47	60.5
	Acceptance	53	40	66	46.25	61
	Alternative Rewards	45	37	64	43.5	54.25
	Emotional Discharge	58.5	45	82	48	72.75
	Total for category	208	192	258	196	235.5

(Histograms to illustrate these distributions are in Appendix: 22)

Table 16. The distribution of percentages differences between participants' *avoidance* and *approach* scores after six sessions of therapy

Median	11.45
Minimum	-7
Maximum	19
Inter-quartile range:	
25	10.25
75	17.63

The tables above indicate that participants' scores on the Coping Responses Inventory after six sessions were fairly normally distributed.

4.2.7 CORE

Table 17 details participants' scores on the CORE inventory after six sessions

Table 17. Participants' scores on the CORE inventory after six sessions (N=10)

Category	Median	Minimum	Maximum	Inter quartile range	
				25	75
Well-being	6	0	12	1.75	9.25
Functioning	13.80	4	33	8.25	25.47
Risk	0.48	0	4	0.0	3
Other problems	9.6	3	35	6	20.4
Global (total)	30.6	10	76	15.98	54.4

(Histograms to illustrate these distributions are in Appendix: 23)

These results indicated that participant's scores on the CORE were slightly positively skewed. This was considered normal, given that a reduction in participants' levels of psychological distress would be possible after six sessions of therapy.

4.2.8 Comparison of Psychotherapy Participants' Coping Responses Inventory Scores with a Non-Clinical Population

As has already been shown in Table 10, psychotherapy participants' scores on the Coping Responses Inventory, measured pre-therapy, were fairly normally distributed, with a relatively wide range of scores. This indicated that the participants' coping scores varied considerably between individuals.

To investigate whether participants' coping styles differed from those of a *non-clinical* group, an exploratory examination was performed on the clinical groups' responses on the Coping Responses Inventory in comparison to scores obtained from a *non-clinical* group. The demographic status of the *non-clinical* group is reported in Table 18.

Table 18 Demographic status of the *non-clinical* group compared to the *clinical* group

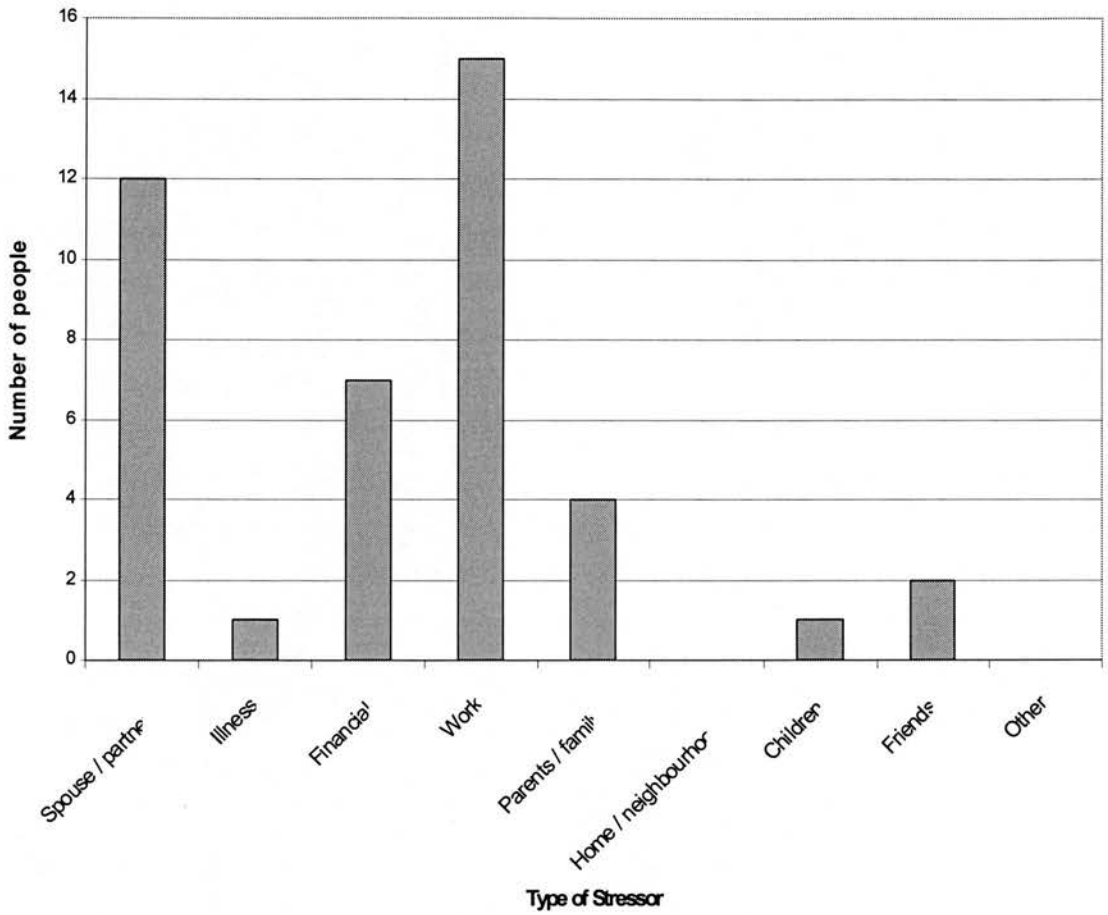
	Group	Clinical (N = 41)	Non-clinical (N = 41)
Sex	**Male**	39% (N = 16)	39% (N = 16)
	Female	69% (N = 25)	69% (N = 25)
Age	**Mean**	37.63	31.07
	SD	11.82	8.93
	Range	18-61	18-61

As can be seen in Table 18, the *non-clinical* group was closely matched with the *clinical* group in terms of age and sex. A Chi-Square confirmed that there were no significant gender differences between the two groups; X^2 =0.006, df=74.4, p=1.0 (ns). However, an independent t-test carried out between the age differences of the two groups indicated that there was a significant difference; t=-2.83, df=74.4, p=0.02, two-tailed. This indicated that the *non-clinical* population were significantly younger than the *clinical* population.

Part i Stressor

Figure 4 shows the type of stressors that the individuals in the *non-clinical* group reported as causing them most stress over the past 12 months.

Figure 4. The type of stressors identified by the individuals in the *non-clinical* group. (N.B. two individuals reported more than one stressor)



Like the *clinical* group, individuals who were close to the respondent were identified as being a source of stress (spouse/partner = 29%), though unlike the *clinical* group, work (37%) also featured highly as a stressor. Table 19 shows the *non-clinical* group's appraisal of their stressor.

Table 19. The *non-clinical* group's appraisal of their stressor.

Appraisal	Number (%)
Novel problem	24 (59)
Considered a threat	12 (29)
Considered a challenge	16 (39)
Considered both a threat and a challenge	10 (24)
Not considered a threat or a challenge	3 (7)
Caused by something they did	8 (20)
Caused by something someone else did	13 (32)
Caused by something that they and others did	8 (20)
Not caused by something they or others did	8 (20)
Problem still ongoing	10 (24)
Problem now resolved	31 (76)

As can be seen from a comparison of Table 19 with Table 9, more participants in the *non-clinical* group appraised their stressor as a challenge (39%) than a threat (29%), whereas more participants in the *clinical* group had appraised their stressor as a threat (61%), than a challenge (12%).

Part ii Coping Responses

The scores of the *non-clinical* group on the *approach* coping subscales were found to be fairly normally distributed, and their scores on the *avoidance* coping subscales were found to be positively skewed. Full descriptions of the *non-clinical* groups' scores on the Coping Responses Inventory can be found in Appendix: 24.

Comparisons

Figures 5 and 6 illustrate the scores of the two groups on each category of the Coping Responses Inventory.

Figure 5. *Avoidance* scores of the *clinical* and *non-clinical* groups

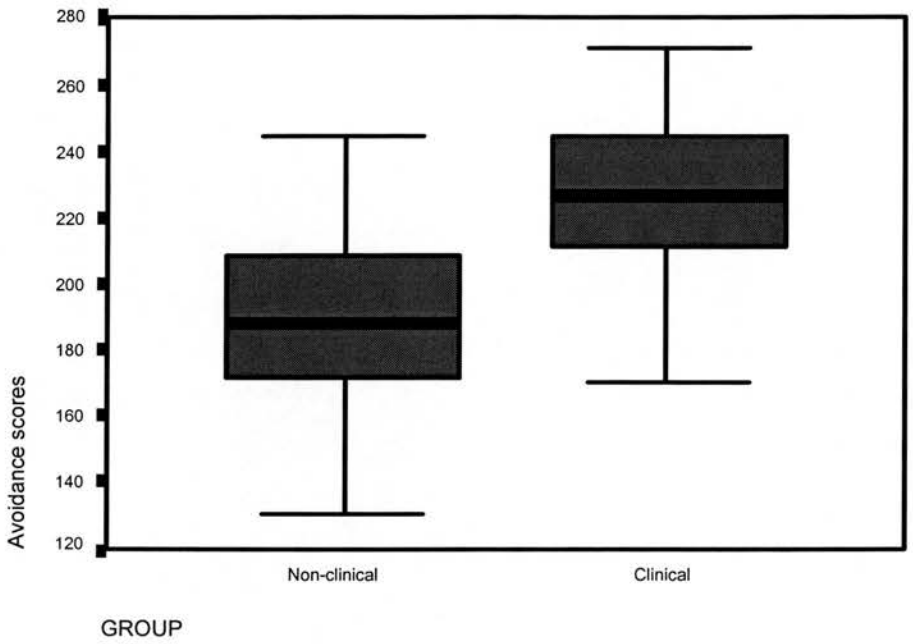
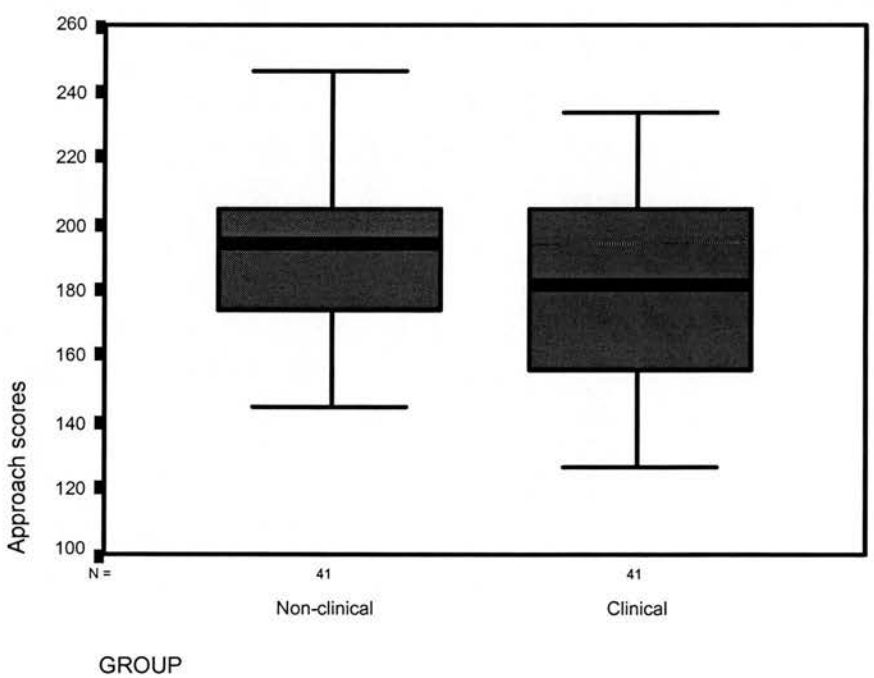


Figure 6. *Approach* scores of the *clinical* and *non-clinical* groups



As can be seen from the box plots, the *clinical* group appeared to have much higher *avoidance* scores than the *non-clinical* group and the variance of *approach* scores in the *clinical* group appeared much greater than that of the *non-clinical* group. To establish if the differences between the two groups were significant, two-tailed Mann Whitney tests were conducted. Table 20 shows a significant difference was found between the scores of the two groups on the *Avoidance* category; U=273.500, N_1= 41, N_2=41, p=<0.001, two-tailed, and no significant differences were found between the *Approach* scores; U=712.000, N_1=41, N_2=41, p= 0.23, two-tailed.

Table 20. Comparison of the *avoidance* and *approach* scores in the *clinical* and *non-clinical* groups

Category	Group	Median	Inter quartile range	P-value
Approach	**Clinical**	182	157 to 205	0.23
	Non-Clinical	194	174 to 205	
Avoidance	**Clinical**	226	210 to 244	<0.001
	Non-Clinical	188	171 to 208	

This exploratory examination indicated that the coping style of the participants referred for psychotherapy was not homogenous and differed from that of a *non-clinical* group.

4.2.9 Summary

All data collected from the administration of the inventories used in the study was checked for normality. Most distributions of scores on the subscales were found to be fairly normally distributed, although some skewed distributions were found. On account of this and the small numbers involved in the study, non-parametric tests were used in statistical analyses to test the experimental hypotheses.

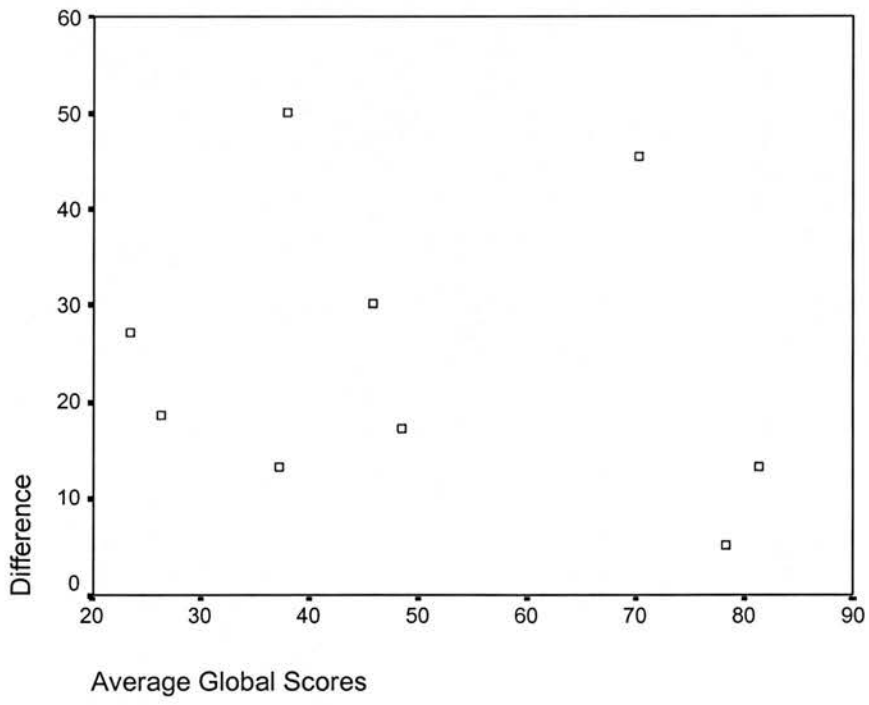
Part 3: Investigation of the Experimental Hypotheses

4.3.1 Hypothesis one:

The relationship between patients' scores on the *approach* subscales of the Coping Responses Inventory and their therapeutic outcome (i.e.: changes in their CORE scores from pre-therapy to after six sessions) will be greater than the relationship between patients' scores on the *avoidant* subscales of the Coping Responses Inventory and their therapeutic outcome.

To investigate this hypothesis, Bland and Altman plots were plotted to explore the therapeutic outcome of the participants. This is a plot of the differences between participants' pre and post scores against the average of pre and post six sessions of therapy scores plotted for each individual on each subscale of the CORE. The Bland and Altman plot of the Global subscale of the CORE is shown in Figure 7 and Bland and Altman plots for the Well-being, Risk, Other Problems and Functioning subscales are in Appendix: 25.

Figure 7. A Bland-Altman plot of participants' scores on the Global subscale of the CORE.



The Bland and Altman plots illustrate that the majority of participants had positive values for the pre-post difference i.e.: there was a decrease in their levels of psychological distress as their pre therapy CORE scores were higher than their CORE scores after six sessions. One participant did not have a reduction in their pre to post scores on the Well Being and Problems subscales, and one participant did not experience a reduction in their Risk scores. The magnitude of the differences in pre-post scores varied immensely between participants.

To establish whether there was a significant difference between participants' pre and post six sessions of therapy CORE scores, a Wilcoxon signed rank test was carried on their scores obtained pre and post on each subscale of the CORE. The results are shown in Table 21.

Table 21. The median and inter quartile ranges of scores on each of the CORE subscales administered pre and post six sessions of therapy

CORE Subscale	**Pre-therapy**		**After six sessions**		**P-value**
	Median	**Inter quartile range**	**Median**	**Inter quartile range**	
Global	61.88	43.86 to 82.45	30.6	15.98 to 54.4	**Z=-2.66, N-Ties=9, p=0.008***
Well Being	10	10 to 12	6	1.75 to 9.25	**Z=-2.501, N-Ties=9, p= 0.01***
Functioning	24	15.48 to 31.5	13.8	8.25 to 25.47	**Z=-2.66, N-Ties=9, p=0.008***
Risk	3	3 to 6	0.48	0 to 3	**Z=-1.99, N-Ties=6, p=0.046***
Other Problems	26.04	17.4 to 36	9.6	6 to 20.4	**Z=-0.072, N-Ties=9, p=0.02***

As can be seen from Table 21, there had been a significant reduction in participants' scores on all subscales of the CORE after six sessions of therapy, which are also considered to be clinically significant. To investigate whether there was an association between participants' scores on the CRI and changes in their CORE scores, two-tailed Spearman's rank correlations were performed. The results are shown in Table 22.

Table 22. Two-tailed Spearman's rank correlations on participants' pre therapy coping scores and changes in their CORE scores (from pre-therapy to after six sessions)

		Therapeutic Outcome (changes in CORE after six sessions)				
Category	**Coping Responses Inventory**	**Global**	**Well being**	**Functioning**	**Risk**	**Other problems**
APPROACH	**Approach Total**	0.50	**0.75***	-0.11	0.28	0.52
	Logical Analysis	0.38	**0.70***	0.17	0.24	0.35
	Positive Appraisal	**0.67***	**0.78***	-0.17	0.53	0.42
	Seeking Support	0.39	0.60	-0.28	0.10	0.57
	Problem-solving	0.44	0.63	-0.17	0.17	0.30
AVOIDANCE	**Avoidance Total**	0.29	0.42	0.5	0.0	0.60
	Cognitive Avoidance	**-0.67***	**-0.67***	0.09	-0.08	-0.27
	Acceptance	0.18	0.41	-0.11	0.08	0.06
	Alternative Rewards	0.41	0.56	**0.74***	-0.23	**0.71***
	Emotional Discharge	0.25	0.35	0.48	0.09	0.53
	% difference index	-0.48	-0.64	0.17	-0.22	-0.37

* = significant at the 0.05 level

Note that in this table, positive correlations reflect that a decrease in participants' levels of distress as measured by the subscales of the CORE, was related to high scores on a subscale of the Coping Responses Inventory and a negative correlation indicates the converse.

The results in Table 22 indicate that significant positive associations were found between several *approach* subscales and reductions in levels of psychological distress over six sessions. Specifically, Logical Analysis (rs = 0.7), Positive Reappraisal (rs = 0.78) and Total *Approach* coping scores (rs = 0.78) were found to be significantly related with reductions in Well-Being scores (which indicated an actual increase in the participant's well-being) and high Positive Reappraisal scores were significantly associated with a reduction in Global distress levels (rs = 0.67). These results indicated that having a strong *approach* coping style was associated with a reduction in levels of psychological distress after six sessions of therapy. Conversely, Cognitive Avoidance scores were significantly associated with low reductions in levels of Global distress (rs = -0.67) and Well-Being (rs = -0.67).

As significant positive relationships were found between three *approach* subscales of the Coping Responses Inventory measured pre-therapy and two subscales of the CORE inventory (when the difference between patients' CORE scores measured pre therapy and post six sessions was calculated) at the 0.05 level of significance, the experimental hypothesis was accepted.

Although positive correlations were found between the different *approach* subscales and most measures of change on the CORE, this was not the case for the CORE psychological Functioning scale. The significant correlations between the Alternative Rewards and Functioning scale (rs = 0.74) and Other Problems subscales (rs = 0.71) were also unexpected. These findings are considered in the discussion section.

4.3.2 Hypothesis two

The relationship between patients' scores on the *approach* subscales of the Coping Responses Inventory and therapists' ratings of the therapeutic alliance will be greater than the relationship between patients' scores on the *avoidant* subscales of the Coping Responses Inventory and therapists' ratings of the therapeutic alliance.

To investigate this hypothesis, the associations between participants' scores on the Coping Responses Inventory and the CALPAS-T were examined using two-tailed Spearman's rank correlations. The psychologists' rating of the alliance was used for this analysis as their perspective of the alliance was considered to be more pertinent to the evaluation of the therapy than the participants'. The results are shown in Table 23.

Table: 23. 2-tailed Spearman's correlations on participants' scores on all subscales of the CALPAS-T and Coping Responses Inventory. (N = 26)

Coping Inventory		**CALPAS-T**				
Category	**Subscale**	**Total**	**Patient Working Capacity**	**Patient Commitment**	**Working Strategy Consensus**	**Therapist Understanding**
APPROACH	**Total for category**	0.26	0.18	0.14	0.36	0.25
	Logical Analysis	**0.44***	**0.41***	0.29	**0.48***	0.37
	Positive Appraisal	0.13	0.12	-0.33	0.19	0.31
	Seeking Support	0.25	0.18	0.19	0.31	0.11
	Problem Solving	0.03	-0.03	-0.05	-0.14	0.04
	Percentage of Approach	0.13	0.04	0.08	0.24	0.15
AVOIDANCE	**Total for category**	0.32	0.36	0.20	0.29	0.17
	Cognitive Avoidance	-0.01	0.10	-0.08	-0.03	0.03
	Acceptance	0.07	0.10	<0.001	0.12	<0.001
	Alternative Rewards	0.26	0.21	0.19	0.26	0.19
	Emotional Discharge	0.38	**0.42***	0.27	0.35	0.27
	Percentage of Avoidance	-0.13	-0.04	-0.08	-0.24	-0.15

* = significant at 0.05 level

These results indicated that having a strong reliance on Logical Analysis was significantly associated with a good overall (Total) therapeutic alliance (rs = 0.44) and in the areas of Patient Working Capacity (rs = 0.41) and Working Strategy Consensus (rs = 0.44). The other realms of *Approach* coping were not significantly associated with the formation of a good therapeutic alliance.

An unexpected significant correlation was found between the Emotional Discharge subscale on the Coping Responses Inventory and the Patient Working Capacity subscale of the alliance scale (rs = 0.42), which is considered in the discussion. It was also unexpected to see a positive association (though not significant) between total *Avoidance* scores and the Total Therapeutic Alliance score (rs = 0.32) and Patient Working Capacity (rs = 0.36), as these were against the direction of the hypothesis, particularly as most of the other *avoidance* subscales (except Emotional Discharge) had indicated very weak associations. It was therefore hypothesised that the total *Avoidance* scores had been influenced by the Emotional Discharge scores to artificially inflate the association between total *avoidance* coping scores and Total alliance scores, and the Patient Working Capacity subscale. To test this, partial correlations were conducted between these subscales, controlling for Emotional Discharge. The results are shown in Table 24.

Since partial correlations are a parametric test, unadjusted Pearson's correlations, uncontrolled Pearson's correlations were initially performed on the subscales to allow for direct comparison of results with adjusted correlation coefficients.

Table 24. Pearson's Correlations of *Avoidance* scores and Total Therapeutic alliance scores

	Category	**Total therapeutic alliance**	**Patient working capacity**
Uncontrolled correlation	**Total avoidance score**	0.27	0.38
Controlled for Emotional Discharge	**Total avoidance score**	-0.02	0.09

Table 24 indicates that emotional discharge scores inflated the correlation between total Cognitive Avoidance scores and therapeutic alliance. After adjustment, the correlation coefficient was much smaller. This indicated that consistent with hypothesis three, participants' with a high avoidant coping style did not form such a good alliance with their psychologists.

As significant positive relationships were found between patients' scores on the Logical Analysis approach subscale of the Coping Responses Inventory measured pre-therapy and therapist's ratings on the Patient Working Capacity, Working Strategy Consensus and Total subscales of the CALPAS-T at the 0.05 level of significance, the experimental hypothesis was accepted.

Post hoc analyses

As some previous research has suggested that pre-therapy symptomatology should not have an effect on the therapeutic alliance (Gaston et al, 1988), a post hoc analysis was conducted to see if this was the case in the present study. Two tailed Spearman's rank correlations were conducted on the participants' pre-therapy CORE scores and therapeutic alliance scores from the perspective of the psychologist. The results are shown in Table 25.

Table 25. 2-tailed Spearman's rank correlations between the subscales of the CALPAS-T with participants' pre-therapy CORE scores.

		Pre-therapy CORE scores				
	Category	**Global**	**Well being**	**Functioning**	**Risk**	**Other problems**
C A L P A S T	**Total**	0.22	0.34	0.34	-0.21	0.21
	Patient Working Capacity	0.24	0.36	0.35	-0.16	0.22
	Patient Commitment	0.23	**0.44***	0.38	-0.26	0.24
	Working Strategy Consensus	0.27	0.34	0.36	-1.19	0.23
	Therapist Understanding and Involvement	0.09	0.19	0.28	-0.16	0.09

* = significant at the 0.05 level

The CORE's authors state that the Other Problems subscale of the CORE refers to an individual's symptomatology. As can be seen from Table 25, participants' levels of pre-therapy symptomatology, as assessed by this subscale, were not significantly associated with any measure of the therapeutic alliance. This was consistent with previous research. The significant correlation of Well-Being and Patient Commitment (rs = 0.44) was unexpected and is considered in the discussion section.

A second post hoc analysis was conducted to investigate whether there was an association between participants' and psychologists' measurement of the alliance. This was ascertained by performing 2-tailed Spearman's rank correlations on all subscales of the CALPAS-T and CALPAS-P scores. The results are shown in Table 26.

Table 26. 2 tailed Spearman's rank correlations of CALPAS-T and CALPAS-P scores. (N = 22)

	CALPAS-T				
CALPAS-P	**Total**	**Patient Working Capacity**	**Patient Commitment**	**Working Strategy Consensus**	**Therapist Understanding and Involvement**
Total	0.35	0.21	**0.52***	0.37	0.13
Patient Working Capacity	-0.16	-0.30	0.02	-0.13	-0.25
Patient Commitment	0.34	0.28	**0.43***	0.36	0.21
Working Strategy Consensus	0.32	0.25	0.42	0.29	0.09
Therapist Understanding	0.39	0.25	**0.54****	**0.45***	0.09

* = significant at the 0.05 level, ** = significant at 0.01 level

As can be seen in Table 26, there were some significant associations between certain subscales of the therapeutic alliance as measured both by the psychologist and the participants. In particular, both participant and psychologist agreed on their view of the Patient's Commitment ($rs = 0.43$).

4.3.3 Hypothesis three:

There will be a significant positive relationship between therapists' rating of the therapeutic alliance and patients' therapeutic outcome.

To investigate this hypothesis, 2 tailed Spearman's rank correlations were conducted between psychologists' alliance measures and changes in participants' CORE scores from pre-therapy to after six sessions. The results are reported in Table 27.

Table 27. 2-tailed Spearman's rank correlations between all subscales of the CALPAS-T and participants' changes in all subscales of the CORE after six sessions (N = 9, one person had no pre-therapy CORE).

		Therapeutic outcome (changes in CORE scores)				
	Category	**Global**	**Well being**	**Functioning**	**Risk**	**Other problems**
C A L P A S T	**Total**	0.08	0.36	0.20	**-0.69***	**0.75***
	Patient Working Capacity	0.15	0.33	0.16	**-0.69***	**0.86****
	Patient Commitment	-0.04	0.28	0.22	**-0.78***	0.59
	Working Strategy Consensus	0.13	0.39	0.18	-0.49	**0.77***
	Therapist Understanding and Involvement	-0.29	<0.01	-0.26	**-0.72***	0.45

* = significant at 0.05 level

** = significant at the 0.01 level

The table above indicates that certain aspects of the therapeutic alliance were significantly associated with therapeutic outcome; In particular Total alliance scores (rs = 0.75), Patient Working Capacity (rs = 0.86) and Working Strategy Consensus (rs = 0.77) were significantly associated with a reduction in Other Problems (symptomatology) after six sessions of therapy.

It was very unexpected to find a significant negative association between a reduction in Risk scores and measures of therapeutic alliance. An investigation of participants' actual Risk scores obtained pre-therapy and after six sessions, compared with their total alliance scores, shown in

Table 28 indicates that this association appears to have occurred due to the small numbers involved in the analysis. As detailed in Table 28, one participant had a poor therapeutic alliance (46), yet attained a reduction in their Risk scores of 7, whereas another participant had an increase in their Risk scores of 2, yet had a good therapeutic alliance (138) and three participants had a static score of 0. This may have occurred only a small range of scores was available for the rank calculations needed for this test.

Table 28. The difference between participants' pre and post Risk scores and their Total therapeutic alliance scores.

Participant	Pre therapy Risk score	Risk score after six sessions	Difference in pre-post scores	Total Therapeutic Alliance Score
1	0	0	0	141
2	6	1	5	135
3	6	0	6	96
4	13	3	10	100
5	8	1	7	46
6	1	3	-2	138
7	0	0	0	135
8	0	0	0	130
9	7	4	3	140

In contrast, when participants' actual Other Problems scores were compared to the Patient Working Capacity of the therapeutic alliance, as in Table 29, the amount of reduction in their levels of distress were seen to be more closely associated with their total therapeutic alliance scores.

Table 29. The difference between participants' pre and post Risk scores and their Patient Working Capacity scores

Participant	Pre therapy Other Problems score	Other Problems score after six sessions	Difference in pre-post scores	Patient Working Capacity Score (Maximum = 42)
1	25	3	22	37
2	39	18	21	31
3	10	6	4	23
4	8	7	1	13
5	6	12	-6	8
6	30	28	2	31
7	24	14	10	32
8	14	7	7	30
9	47	35	12	32

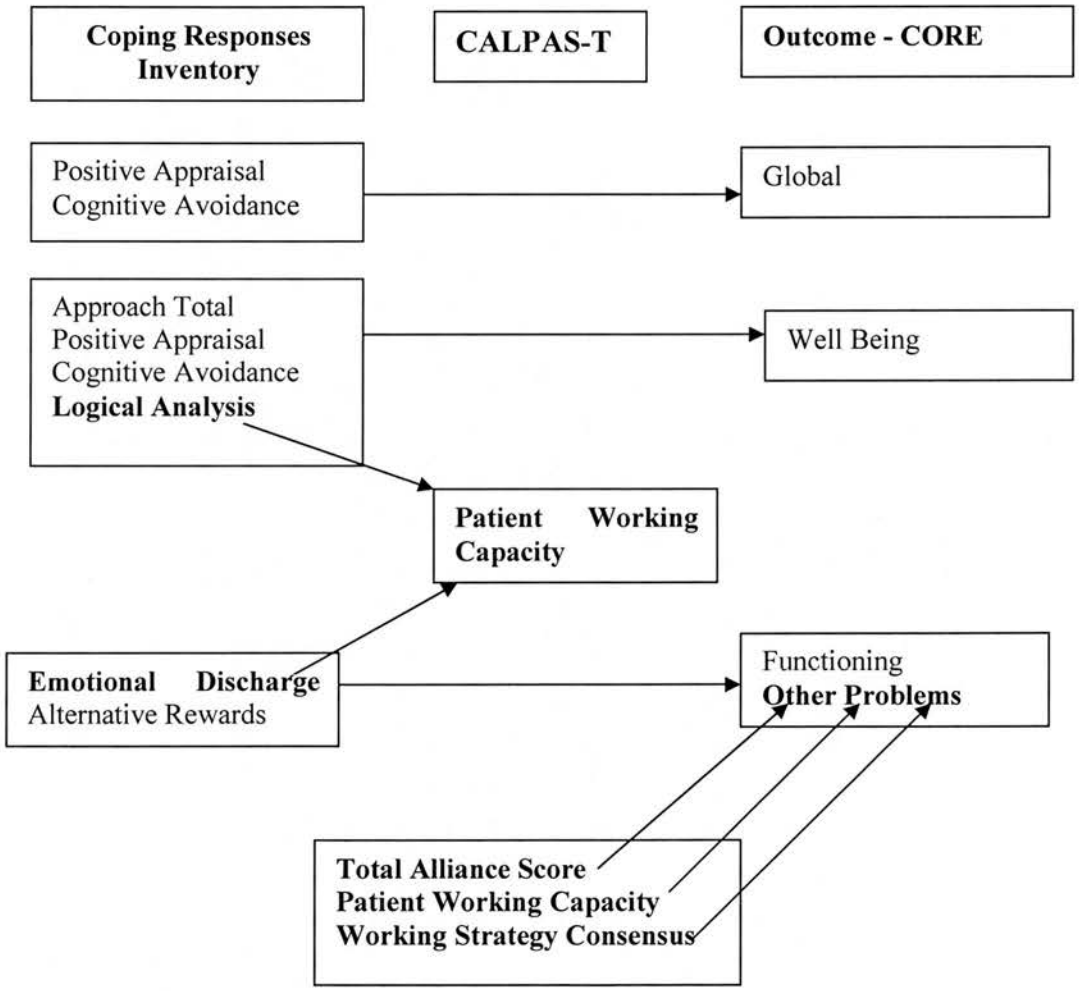
Whilst acknowledging that the negative correlation between Risk scores and aspects of the therapeutic alliance were negatively associated and that this is likely to have been due to the small number involved in the analysis, as significant positive relationships were found between the Patient Working Capacity, Working Strategy Consensus and Total subscales of the CALPAS-T, and Other Problems subscale of the CORE inventory (when the difference between patients' CORE scores measured pre therapy and post six sessions was calculated) at the 0.05 level of significance, the experimental hypothesis was accepted. However, due to the small numbers involved in this analysis, the results should be considered with caution.

4.3.4 Hypothesis four

Any relationships between patients' approach coping style and their therapeutic outcome will be mediated by the therapeutic alliance.

To investigate this hypothesis, the significant correlations that had been found between participants' pre-therapy coping style, therapeutic alliance and therapeutic outcome were represented in Figure 8.

Figure 8. The significant relationships between the subscales of the measures



As can be seen from Figure 8, a number of significant associations were found between subscales of The Coping Responses Inventory, Therapeutic Alliance and Therapeutic Outcome,

suggesting that there was a shared relationship between the three aspects. However, no significant associations were found between the same subscales across the three measures. This meant that further statistical investigation of therapeutic alliance as a possible mediating factor between patient coping style and therapeutic outcome was not viable.

Despite the absence of significant relationships between the same subscales over the three measures, some trends were identified which suggest that therapeutic alliance may have been a mediating factor between participants' coping style and therapeutic outcome. It is possible that if the study had been larger, there would have been sufficient power to detect some of these associations as statistically significant.

As significant positive relationships were not established between the same approach subscales of the Coping Responses Inventory found to be associated with subscales of the CALPAS-T as the approach subscales found to be associated with the CORE inventory (when the difference between CORE scores measured pre therapy and post six sessions was calculated), and no significant positive relationships were established between the same subscales of the CALPAS-T found to be associated with the Coping Responses Inventory as the CALPAS-T subscales found to be associated with the CORE inventory (when the difference between CORE scores measured pre therapy and post six sessions was calculated), the null hypothesis was accepted.

4.3.5 Hypothesis five

There will be no significant differences between patient's scores on the Coping Responses Inventory measured pre-therapy and after six sessions of therapy.

To investigate if there were any significant differences between participants' pre and post scores, 2-tailed Wilcoxon signed rank tests were performed on participants' scores on each scale of the Coping Responses Inventory obtained pre-therapy and after six sessions. The results are shown in Table 30

Table 30. The Results of 2-tailed Wilcoxon tests between participants' pre and post scores on the Coping Responses Inventory(N = 10).

Category	Subscale	Pre-therapy		After six sessions		P-value
		Median	Inter quartile range	Median	Inter quartile range	
Approach	Total Approach	166.5	141 to 231	180	155.5 to 207.5	Z=-0.53, N-ties=10, p = 0.59
	Logical Analysis	44.5	34 to 52	42	36.25 to 52	Z=-0.30, N-ties=9, p = 0.76
	Positive Reappraisal	46	34 to 58	42.5	33.25 to 54.25	Z=-0.53, N-ties=8, p = 0.59
	Seeking Support	48	37 to 55	51.5	42 to 59.5	Z=-1.72, N-ties=8, p = 0.09
	Problem-solving	42	30.5 to 58	44	35.5 to 52.25	Z=-0.30, N-ties=9, p = 0.76
Avoid.	Total Avoidance	222	211.75 to 242	208	48 to 72.75	Z=-1.69, N-ties=10, p = 0.09
	Cognitive Avoidance	57.5	51.75 to 67.5	54	47 to 60.5	Z=-1.69, N-ties=10, p = 0.2
	Acceptance	53	47 to 57.25	53	46.25 to 61	Z=-0.41, N-ties=8, p = 0.68
	Alt. Reward	47	39 to 58	45	43.5 to 54.25	Z= 0.05, N-ties=9, p = 0.95
	Emotional Discharge	61.5	51 to 83.5	58.5	48 to 72.75	Z=-1.38, N-ties=10, p = 0.17
	Percentage Difference	12.07	5.5 to 22.9	11.45	10.25 to 17.63	Z=-0.66, N-ties=10, p = 0.5

As can be observed from the table above, no significant differences were found between participant's scores on any subscale of the Coping Responses Inventory measured pre-therapy

and after six sessions of therapy. This indicates that participants' coping style had not changed significantly over six sessions of therapy. As no significant differences were found between patient's scores on any subscales of the Coping Responses Inventory measured pre-therapy and after six sessions of therapy, the experimental hypothesis was accepted.

4.4 Part four: Qualitative information

Qualitative information was obtained via semi-structured interviews from five clinical psychologists and the counselling psychologist, and from one participant.

4.4.1 Psychologists

The psychologists were asked about their impressions of the study and how their patients in the study had responded to therapy.

CALPAS-T

Most psychologists thought that this scale was quite easy to understand, with the exception of question 14 " My patient and I worked in a joint struggle". Some stated that this could have been open to more than one interpretation; either, were they working jointly with the patient in the struggle of therapy? or did the psychologist struggle to keep the patient focused in therapy? The majority had interpreted it to mean were they working jointly with their patient in the struggle of therapy.

Another issue that the psychologists mentioned was that some of the questions pertaining to how the patient was doing in therapy (mainly from the Working Strategy Consensus subscales) were difficult to answer for some patients after the third session of therapy, as they were still in the process of assessing their patient and had not fully embarked upon therapy. Some psychologists also stated that they found it a difficult to answer questions on the Therapist Understanding and Involvement subscale, as they found it difficult to rate how well they were delivering their own interventions and most stated that they scored these questions quite highly. In general, the psychologists said that completing the CALPAS had made them think more about their relationship with their patients and its importance in therapy.

End of therapy form

All psychologists said they had found this easy to understand and complete.

General engagement issues

As the study aimed to investigate whether patients' coping style had an influence on how they respond in therapy, the psychologists were also asked about which patient characteristics they thought might contribute to the therapeutic alliance. Consistent with the literature on this issue, they reported features of: good verbal skills, insight, evidence of motivation to change, positive attitude to therapy, realistic expectations, and a willingness to take responsibility for change.

When asked how they thought these features could be assessed, questionnaires were suggested to look at patients' motivation and pre-screening interviews. However, all of the psychologists thought that it might be difficult to obtain such abstract information from questionnaires. In addition, most stated that using indices of a patients' diagnosis and complexity of their problems were not useful indicators of whether a patient would engage well in therapy or not. One psychologist said that they found it difficult to engage with patients presenting with Somatization disorder.

When asked how the psychologists generally responded to patients with an avoidant coping style, they all stated that they usually adapted their therapy in response. Some of the reported adaptations were: reflecting the avoidance back to the patient, asking them if there are ways in which they can help them to discuss their problems such as writing down their feelings, slowing down therapy, empathising more and using a non-talking therapy such as Eye Movement Desensitisation Reprogramming.

When asked what changes they would suggest making to the study, some psychologists stated that it would be useful and interesting to follow up patients who drop out in the middle of therapy without prior warning and to follow up patients at the end and post therapy.

4.4.2 Participant

One participant who returned their sixth session pack added a note to state that they were willing to give individual feedback on the study, if desired. This was discussed with their psychologist to see if this would be appropriate before contacting them.

Measures

When asked about the measures, the participant stated that both the Coping Responses Inventory and CALPAS-P had been easy to understand and complete.

Chapter 4: Discussion

5.1 Summary of Research

The demand for Adult Clinical Psychology services currently outstrips the available resources and there is a strong need to prioritise patients who should receive this service. This is consistent with the NHS Executive who have proposed a tiered model of services, based on the severity and complexity of patients' problems as a means to prioritise patients (Scottish Executive, 2001). However, although using indices of complexity and severity can be useful to look at the clinical needs of patients who should receive a service, psychotherapy outcome research has demonstrated that not everyone who receives therapy benefits from it to the same degree, regardless of the type of therapy given or the patients' diagnosis. There is some evidence to suggest that patient characteristics, particularly their coping style, might have an impact on therapeutic outcome (e.g.: Simons et al, 1985; Beutler et al, 1991). This supposition has been supported by anecdotal observations from practising clinicians (Bateman et al, 2000; Horowitz et al, 1997) and indicates that patient characteristics should also be considered when taking into account the selection of patients for psychotherapy. In addition, recent psychotherapy process research has demonstrated that therapeutic alliance also has an important role in psychotherapy outcome (Martin et al, 2000) and that individual patient characteristics contribute to the formation of a good therapeutic alliance (Gaston et al, 1988; Hardy et al, 2001).

The aim of this study was to investigate the role of patient coping style in a naturalistic setting to ascertain whether patient coping style was associated with therapeutic alliance and therapeutic outcome. More specifically, it was hypothesised that patients with a strong *approach* coping style would form a strong therapeutic alliance with their psychologist, which in turn would lead to a good therapeutic outcome (i.e.: a reduction in their psychological distress) whereas patients with a strong *avoidant* coping style would not form a good alliance with their psychologist, which would obstruct the therapeutic process, preventing them from attaining a good therapeutic outcome.

This was investigated by inviting all patients who opted into an Adult Clinical Psychology Department over a four-month period to take part in the study. From a population of 101, 41 patients agreed to participate and completed a pre-therapy questionnaire to measure their coping style. After three sessions, they and their psychologists were asked to complete independent measures of a Therapeutic Alliance Scale. After six sessions, participants were asked to repeat

the coping style questionnaire and a measure (completed pre-therapy as part of routine practice) to assess their level of psychological distress in order to obtain a measure of therapeutic change at the end of the study.

This discussion will begin with an examination of the experimental hypotheses in detail, followed by a critique of the design and the measures used. A review of issues that have been identified worthy of further investigation will then be considered. Finally, the discussion will conclude with a synopsis of the research findings.

5.1.2 Statistical Power

Over the time frame of the study 41 patients agreed to participate. Initial power calculations had indicated that based on expecting to detect a medium effect size (0.5), a minimum of 30 participants were required in order for the study to detect a statistically significant difference ($\alpha = 0.05$) with power of 0.8 (Clark-Carter, 2001).

Although 41 participants completed the initial pre-therapy phase of the study, these numbers were not maintained over phases two (measurement of therapeutic alliance after the third session of therapy) and three (measurement of therapeutic change after the sixth session of therapy). The main reasons for the participants not reaching phases two and three were: participants not being seen for therapy by three weeks after opt-in (as per departmental policy), participant drop out from therapy and participants not having had three or six sessions of therapy by the end of data collection.

Due to power not having been attained for the whole of the study, there is a possibility this could have influenced the results, with the consequence that type one and type errors have been made. This should be borne in mind when considering the following section.

5.2. Discussion of Experimental Hypotheses

5.2.1 Did patients with a strong approach coping style have a better therapeutic outcome than patients with a strong avoidant coping style? (Hypothesis 1)

Although a variety of patient characteristics have been identified as playing a role in psychotherapy outcome, many of these have lacked a theoretical basis or have not had their validity verified through replication studies (Beutler, 1991). In contrast, patient coping style has a comprehensive theoretical grounding and has been cited in a number of studies as having an important role in determining psychotherapy outcome (e.g.: Dance & Neufeld, 1988; Michelson, 1986; Ludwick-Rosenthal & Neufield, 1993), which is consistent with clinicians' general observations of how patients respond to therapy (Horowitz et al, 1997).

Similar to previous findings, in the current study participants with strong *approach* coping strategies were found to have a significantly better therapeutic outcome than those with strong *avoidance* coping strategies in all areas measured by the CORE except Functioning. Specifically, a strong overall reliance on *approach* coping strategies and the strong reliance on the cognitive *approach* coping strategies - Logical Analysis and Positive Reappraisal - were found to be significantly associated with an increase in Well-Being over six sessions. In addition, there also appeared to be a trend toward strong reliance on *approach* coping being associated with a reduction in Other Problems (i.e.: symptomatology) after six sessions. Consistent with initial predictions, this indicated that having an *approach* coping style appears to be associated with a good therapeutic outcome, after six sessions of therapy. Having a strong reliance on Logical Analysis would appear to be particularly important to success in therapy, as it is believed to measure an individual's ability to actively think about their problems and stressors and to break problems into small manageable parts (Moos, 1992). A patient's capability to do this would seem very relevant to participation in therapy, as it is essentially one of the major therapeutic tools.

An interesting finding was that although all participants experienced a decrease in their levels of distress, as measured by the Functioning subscale of the CORE after six sessions of therapy, this was not found to be associated with a strong reliance on *approach* coping. The Functioning subscale is believed to examine an individual's life and social functioning. This may suggest

that changes in an individuals' personal circumstances, may be more dependent on external factors, than their internal coping style, although further investigation would be needed to explore this.

In contrast to the above, a strong reliance on the cognitive avoidance coping strategy - Cognitive Avoidance - was significantly associated with a low level of improvement in Well Being and Global levels of psychological distress over six sessions. This was supportive of the experimental hypothesis as the Cognitive Avoidance scale is believed to be the opposite of Logical Analysis and measures an individual's attempts to avoid thinking realistically about their problems, which includes attempts to deny the problem exists through the use of, for example, daydreaming. It is therefore unsurprising that participants who had a strong reliance on this were unable to use psychotherapy as a medium in which to achieve relief from their distress if they found it difficult to think and talk about their problems. Thus, the therapeutic goals for patients with *approach* and *avoidance* coping styles may be very different, as those with *avoidance* coping styles may need to spend time learning how to tolerate discussion of their emotions and how to manage any associated anxiety or distress this might cause. Whereas for patients with an *approach* coping style such goals may be irrelevant.

The results also suggest that individuals with a high reliance on Cognitive Avoidance coping may share many psychological features with individuals identified as repressive copers (Myers, 2000), such as the use of distraction techniques to avoid thinking about their problems. Studies into repressive coping have suggested that the function of this might be to protect the individual from experiencing negative emotions (Myers et al, 1992), which would seem a plausible explanation for the use of Cognitive Avoidance, though further research would be needed to confirm this.

An interesting and unexpected finding was that a strong reliance on the *avoidance* behavioural coping strategy of Alternative Rewards was significantly associated with improvements in Functioning and Other Problems. The Alternative Rewards subscale of the Coping Responses Inventory assesses how much an individual uses alternative activities to help them deal with their problems, such as making new friends or trying new recreational activities. Although these may be viewed as distractions, as they are behavioural distractions they are unlike the cognitive *avoidance* strategies an individual might use that could be an obstacle to therapy. A patients'

use of alternative rewards may actually be beneficial to therapy, as it may capitalise on the behavioural aspect of CBT. For example, if a patient is depressed, a common CBT technique is to help the patient to introduce pleasurable activities into their life by way of activity scheduling (Fennel, 1999). Thus if a patient has the skills to do this prior to starting therapy, they may be able to make use of such strategies quite easily which in turn may lead to an increase in their Functioning and a reduction of their Other Problems (symptomatology) over six sessions. Similarly, this may suggest that as with Yerkes and Dobson's stress continuum theory (1908), a little avoidance or avoidance of a particular type of avoidance may actually have psychological benefits.

Participants' results showed a overall reduction in their levels of psychological distress over six sessions as measured by the CORE, which were considered to be clinically significantly and shown by statistical analysis to be statistically significant. Although the NHS Executive has stated that therapies of fewer than eight sessions are unlikely to be optimally effective for most moderate to severe mental health problems (Department of Health, 2001), the results suggested that some clinically important reductions in levels of psychological distress can be achieved after six sessions of therapy. However, had therapeutic outcome been assessed after eight sessions, different results may have been observed. For example, it is unknown if the improvements obtained after six sessions are maintained and whether, after six sessions, a strong *approach* coping style would still be significantly associated with improvements in levels of psychological distress. To investigate the stability of these conclusions, measures of therapeutic change should be taken at different times in therapy, e.g.: after eight sessions of therapy, after the individual's last session of therapy and ideally at follow up after six months and a year. Furthermore, it is also possible that a type two error has been made and that the changes observed were not due to the participants' coping style but to independent factors that were not examined over the course of the study, such as changes in the participants' personal circumstances.

5.2.2 Did patients with a strong approach coping style form a better therapeutic alliance with their psychologist than patients with a strong avoidant coping style? (Hypothesis 2)

In an attempt to further understand the processes involved in therapeutic change, psychotherapy researchers in recent years have moved away from looking solely at what patient characteristics are associated with a favourable therapeutic outcome, but have started to consider precisely how they interact with therapy so that beneficial therapeutic gains, or otherwise, are achieved (Llewelyn &Hardy, 2001). Efforts from such investigations have shown that the strength of the therapeutic alliance is related to outcome (Martin et al, 2000). It would therefore appear logical that by knowing what patient characteristics contribute to the formation of a good alliance, the conundrum of how therapeutic change is achieved and the quandary of which patients are most appropriate for individual psychotherapy might be learnt. As patient coping style has already been found to be associated with therapeutic outcome, it would seem plausible that it would also be associated with therapeutic alliance.

The results in the present study appeared to confirm the experimental hypothesis. Specifically, having a strong reliance on the cognitive *approach* coping strategy Logical Analysis was associated with a good overall therapeutic alliance, good Patient Working Capacity and a good Working Strategy Consensus. Having a strong reliance on Positive Reappraisal and Problem Solving was not found to be as important to the formation of the alliance. Although significant correlations were not found between total *Approach* scores and alliance subscales, this is likely to have been because the Positive Reappraisal and Problem Solving aspects of *approach* coping were not found to be important to the alliance, which is likely to have weakened the associations between the total *Approach* score and all aspects of the Therapeutic Alliance.

As predicted, conversely, reliance on *avoidance* coping, especially the cognitive strategy Cognitive Avoidance, was associated with having a poor therapeutic alliance (when Emotional Discharge was controlled for), although these relationships were not found to be statistically significant. This is consistent with the findings of Gaston et al (1988) and provides some empirical evidence to support clinician's observations that patients with a strong *avoidance* coping style appear to have difficulty forming a therapeutic alliance (Bateman et al, 2000; Horowitz et al, 1997). This again provides some evidence to suggest that the concept of

cognitive avoidance coping may be similar to that of repressive coping and that it's use may be the same as repressive coping, in that a patient uses avoidance as a means to shield and protect the individual from experiencing negative emotions (Myers, 2000). If this were found to be true, this could suggest that patients with a cognitive avoidant coping style respond poorly to individual psychotherapy, as they find it too emotionally threatening.

An unexpected finding was that a strong reliance on Emotional Discharge was also found to be associated with the formation of a good therapeutic alliance, despite this being considered an *avoidant* coping style. The conceptualisation of Emotional Discharge on The Coping Responses Inventory may be different from how it is viewed in therapeutic terms. In the Inventory, it is defined as assessing an individual's attempts to reduce tension by expressing anger, despair and other feelings but also by using smoking and alcohol to reduce distress. In therapy, emotional discharge may be considered to be just the former of these, i.e.: the literal discharge and expression of emotion. It is perhaps a limitation of the inventory that both of these coping responses were considered under the same subscale.

However, if emotional discharge is considered in it's "pure" literal term, there are a number of explanations that may account for why it was found to be associated with the formation of a good therapeutic alliance. Usually in therapy, when a patient discharges and expresses emotion, it generally indicates that they are in touch in their emotions. In this respect, Emotional Discharge may be considered dissimilar to the concept of Cognitive Avoidance, as thoughts and emotions are different psychological processes. The discharge and expression of emotion in therapy sessions can in some circumstances be cathartic, so long as the patient is not merely treating the psychologist as a means with which to dispose of emotion (Bateman et al, 2000). Furthermore, there is also the possibility that as patients' expression of emotion provides the psychologist with an opportunity to demonstrate empathy, it may actually promote the formation of the therapeutic alliance. It is unfortunate that the Coping Responses Inventory does not differentiate between the concepts of emotional discharge and emotional expression, as the expression of emotion may not conceptually be an *avoidant* coping strategy, whereas emotional discharge may be conceptualised as *avoidant* if considered to be the projection of emotion at others as a means of displacing emotion.

As some significant associations were found between the behavioural coping strategies on both categories of the Coping Responses Inventory (Alternative Rewards and Seeking Support; Emotional Discharge and Seeking Support; Alternative Rewards and Problems Solving in the *clinical* group and Alternative Rewards and Emotional Discharge in the *non-clinical* group), despite the fact that each category is believed to reflect different theoretical styles of coping, this may suggest that such strategies are used in combination to deal with stressors e.g.: when individuals discuss their problems with their friends (Seeking Support), they may also discharged or expressed emotion (Emotional Discharge). If this were the case, this may indicate that the behavioural coping strategies on the Coping Responses Inventory are not used as exclusively as the cognitive ones. However, all of the above speculations would require further investigation to ascertain whether they provide valid explanations of the findings.

5.2.3 Post hoc analyses

As shown in previous studies (Marmar et al, 1986; Gaston et al, 1988), a post hoc analysis indicated that participants' pre-treatment symptomatology (categorised as Other Problems on the CORE) was not associated with any aspect of the therapeutic alliance. This finding does not support the proposal of the use of patients' symptomatology and complexity as *sole* indices for selecting patients for psychotherapy (Durham et al, 2000; Scottish Executive, 2001) and suggests that patient characteristics may also be important to consider.

Interestingly, participants' pre-treatment Well-Being scores correlated significantly with the Patient Commitment subscale of the alliance and there was a trend toward Well-Being also being associated with the other subscales of the alliance. The authors of the CORE state that Well Being subscale assesses an individual's subjective well being, which they view as being different from their symptomatology. By seeking a personal subjective measure of distress, the Well-Being subscale of the CORE may actually be tapping into an individuals' level of self-awareness. Thus, it may also possibly be exploring aspects of psychological mindedness (Coltart, 1988). As this has been found it be associated with in some studies with a favourable therapeutic outcome (Conte et al, 1991), this could help to explain why participants' pre-treatment Well-Being Scores were found to be significantly associated with aspects of the therapeutic alliance.

A second post hoc analysis found some associations between participant and psychologist perspectives of the therapeutic alliance scale. As the measurement of the alliance was from the perspective of two individuals, this suggests that certain aspects of the alliance had provided a valid measurement of the relationship between the psychologist and their patient, although it is also noted that there were also some differences. These differences do not necessarily negate the validity of the alliance measure, rather that the two opinions of the alliance were not in agreement in some areas.

5.2.4 Was therapeutic alliance associated with therapeutic outcome? (Hypothesis 3)

As a Meta-Analytic review of the relation of the Therapeutic Alliance with outcome (Martin et al, 2000) has found the strength of the alliance to be related to therapeutic outcome, it was hypothesised that in the present study, a strong therapeutic alliance would also be associated with therapeutic outcome after six sessions of therapy.

As expected, some aspects of the therapeutic alliance were found to be significantly associated with measures of therapeutic outcome. Specifically a high overall alliance score, and high scores on the Patient Commitment and Patient Working Capacity subscales were found to be significantly associated with a reduction in Other Problems (patient symptomatology). This is consistent with the findings of Thomson et al (1987) who also found the subscales of Patient Commitment and Patient Working Capacity to be associated with symptom reduction at the end of therapy. Although a reduction in Risk scores was found to be associated with a poor therapeutic alliance, this appears to have been due to small range of scores yielded by the small number of participants involved in the analysis and not considered to be clinically relevant.

Aside from the findings with Risk, the results were consistent with previous research that has indicated that therapeutic alliance is associated with outcome. The fact that outcome scores in other subscales of the CORE did not correlate with the therapeutic alliance was not considered to be contrary to these findings, as unlike other measures used in psychotherapy research, the CORE not only assesses an individuals' symptomatology and but also assesses several other aspects their mental health functioning; their subjective well-being, level of risk to themselves and others, and psychological functioning. It was interesting that changes in these aspects of mental health were not found to be associated with therapeutic alliance. Further research would be needed to ascertain the reason for this finding.

5.2.5 Was patient' approach coping style mediated by a good therapeutic alliance to produce a good therapeutic outcome? (Hypothesis 4)

Associations between patient coping style and therapeutic outcome have been demonstrated in a number of psychotherapy outcome studies (e.g.: Ludwick-Rosenthal and Nufeld, 1993; Dance and Nufeld, 1988) however, the factors and processes that bring into being this relationship are not well known. Similarly, therapeutic alliance has been shown to be also associated with outcome (Martin et al, 2000) though the factors that influence this are also not well known. As empirical investigations (Gaston et al 1988) and a number of clinicians (Horowitz et al, 1997) have indicated that aspects of a patient coping style appear to be associated with therapeutic alliance, it was hypothesised that the therapeutic alliance may be a mediating factor between patient coping style and therapeutic outcome.

In the present study, although some significant positive associations were found between aspects of; patient *approach* coping style and therapeutic outcome; patient *approach* coping style and therapeutic alliance; and therapeutic alliance and therapeutic outcome, no significant associations were found between the same subscales across the three measures. This meant that statistical analysis to investigate for the possible mediating relationship of therapeutic alliance between patient *approach* coping style and therapeutic outcome was not viable.

However, this does not necessarily signify that the therapeutic alliance does not play a mediating role between patient *approach* coping style and therapeutic outcome as some trends were found in the data in the direction of this relationship. For example, a strong reliance on the cognitive *approach* coping strategy Logical Analysis, was found to be significantly associated with an improvement in Well-Being over six sessions. Similarly, Logical Analysis was found to significantly associated with the Patient Working Capacity subscale of the therapeutic alliance and there was a trend toward Patient Working Capacity being associated with an improvement in Well Being. This suggested that Patient Working capacity might be a mediating factor between a reliance on Logical Analysis coping and improvements in participants' Well-Being. Likewise, Patient Working Capacity was found to be significantly associated with improvements in the Other Problems subscale of the CORE over six sessions and there was a trend that Logical Analysis was also associated with Other Problems. This suggested that Patient Working

capacity might be a mediating factor between Patient's Logical Analysis coping and an improvement in their Other Problems (symptomatology).

There is a theoretical basis to support why the Patient Working Capacity aspect of the therapeutic alliance might function as a mediating factor between an *approach* coping style and a good therapeutic outcome, as it is believed to measure the patients' ability to work actively and purposefully in treatment and the extent to which they can self-disclose important material and work actively with their psychologists' comments in order to deepen exploration of salient themes (Gaston, 1993). Thus, to be able to do this, a patient would clearly benefit from having a strong reliance on Logical Analysis coping.

It is possible that these relationships were not found to be significant due to the small numbers in the analysis and if the study had been larger, there may have been sufficient power to detect some of these associations as statistically significant, which would have permitted a quantitative statistical investigation of the possible mediating role of the therapeutic alliance.

5.2.6. Did patients' coping style remain the same throughout the course of the study? (Hypothesis 5)

The majority of studies that have found patient coping style to be associated with therapeutic outcome have treated patient coping as a stable personality trait (e.g.: Ludwick-Rosenthal & Nufeld, 1993). However, many of these studies have attracted criticism as they have not empirically investigated if this is indeed the case and whether patient coping style actually remains static over the course of therapy (Beutler, 1991; Shoham & Rohraugh, 1995). Whilst the literature on coping theory indicates that it is indeed a trait (Moos & Schaefner, 1993), as the function of therapy is to help patients change the way in which they deal with their problems, it would appear feasible that therapy might also bring about changes in patients' coping style.

In the present study, no significant changes were found between participants' scores on the Coping Responses Inventory administered pre-therapy and after six sessions. This indicated that participants' coping style had remained relatively stable over the course of the study, despite significant changes in participants' levels of psychological distress. This finding appeared to confirm previous suppositions (Moos & Schaefer, 1993) that patient coping style appears to be a stable trait. However, this conclusion is tentative and would need to be subjected to further evaluation over a longer time period to see patient coping style would remain the case once an individual reaches the end of their therapy, rather than just after six sessions. For instance, it may that brief therapies do not bring about fundamental changes in patient coping style, as they are working at the outer levels of an individuals' psyche. In contrast, the long term use of therapies which are considered to address more fundamental core aspects of psychological functioning, like Cognitive Analytic Therapy, Schema Focused Therapy or Psychodynamic Psychotherapy, may bring about lasting changes in individuals' coping styles.

5.3 Methodological considerations

Whilst some significant results were found, there are a number of methodological issues regarding the design and the use of measures in the study which merit further investigation and which may have compromised the reliability of the results.

5.3.1 Low Response Rate and Lack of Statistical Power

Initial power analysis had predicted that 30 participants would be needed in order for statistical power to be achieved. Whilst 41 participants had been recruited to the study, only 26 completed three sessions and only 13 of these completed six sessions. Furthermore, three participants did not return questionnaires after their sixth session. This meant that the data available to test the experimental hypotheses was much smaller than anticipated and that statistical power was not maintained for all phases of the study. Therefore, although all of the experimental hypotheses, with the exception of hypothesis four (mediation hypothesis), were accepted, as previously mentioned the low numbers involved in the analyses may mean that type one errors have been made and that the null hypotheses have been incorrectly rejected.

This low number of participants was not anticipated as projections for the number of people opting in, and being seen for six sessions within the time frame of the study had predicted that the majority of participants should have had six sessions of therapy. However, as described in the results section, the frequency of participants' session varied greatly, a backlog of opt-ins delayed the start of therapy for some participants and there was quite a high drop out rate.

It was also quite surprising that four participants did not attend their first appointment, as studies that have looked at the effect of opt in services have found that they generally reduce rates of non-attendance at first appointment by 75-97% (Anderson & White, 1994). Although it could have been presumed that by also opting-in to the study, participants would have been more motivated for therapy than the average patient and so been more likely to attend but this does not appear to have been the case.

How could this have been addressed?

Whilst within psychotherapy research, although it is a constant difficulty to achieve a significant number of participants, especially when there are constraints on time (Aveline, et al, 1995), some changes to the experimental design may have resulted with a greater number of participants in the study. For example, if instead of having asked participants to volunteer, the Coping Responses Inventory could have been given to all patients who opted-in to the department. This could have increased the number of participants in the study to around 100 and by doing this, the probability of having 30 participants remain in therapy and complete questionnaires at all three phases of the study would have increased. However, it is highly unlikely that such a procedure would have received ethical approval. Ethical committees usually insist that patients are informed about any research they may take part in and are extremely stringent in ensuring that patients are given time to give their informed consent as to whether they wish to partake in research that is not part of routine clinical practice. It is therefore very unlikely that ethical approval would have been given to conduct the study on all patients without their express consent.

An alternative way in which statistical power might have been achieved for all phases of the study could have been to ask the psychologists involved in the study to cap the length of time between appointments, for example at intervals of no more than two weeks, thus controlling the length of time between participants' first and sixth sessions. However, this would have taken away from the naturalistic and observational element of the study and may have affected the validity of the results. As by manipulating the frequency of appointments, the psychologist's behaviour may be changed and an element of compliance added to the participant, as they are being asked to attend appointments on a strict basis. This could affect aspects of the psychologists' and patients' behaviour that would not be present in normal practice, such as motivation. This in turn could contaminate the study, and so make the results less generalisable to normal clinical practice. For this reason, it was considered vital to keep the study as naturalistic as possible, if the results were to be of clinical use to help psychologists understand more about which patients are most suitable for individual psychotherapy.

5.4 Research Design

There are a number of factors in the research design, which may have limited the investigation of the hypotheses in a robust manner.

5.4.1 Psychologists' behaviour

The behaviour of the psychologists was not controlled for in the study. This was for two reasons: the first to make the study as naturalistic as possible and to reflect normal clinical practice, the second was that coping style was predicted to have had a significant effect on therapeutic alliance and outcome, regardless of the type of therapy as this had been demonstrated in other studies (Gaston et al, 1988). However, whilst the experimental hypotheses were accepted, the role of the psychologist and the impact of their behaviour in this relationship were not formally assessed and it is unknown whether patient coping style would have been associated with outcome at the end of therapy in the same way as it was found to be after six sessions of therapy. Whilst patient coping style and therapeutic outcome have been found to be associated in previous studies (Simons et al, 1985; Beutler et al, 1991), as many of these had used manualised therapies, this may have limited the psychologists' opportunities to respond to the individual coping styles of their patients. In contrast, there were no restrictions on psychologists' behaviours' in the present study and many reported that they used an eclectic approach that varied between participants. Such an approach may allow psychologists to have a greater influence on helping them to form a good therapeutic alliance with their patient, whatever their coping style, than is possible when using manualised therapies.

For example, in interviews with the psychologists who had taken part in the study, there was evidence to suggest that that when they have a patient with an avoidant presentation, they adapt their therapy in response to this and work hard at trying to forge an alliance. Some of the reported adaptations included slowing down the pace of therapy and asking less probing questions in the initial sessions. It would therefore be interesting to ascertain if such techniques can help psychologists to form a good therapeutic alliance with patients with an *avoidant* coping style, albeit over a long time period, and if so, whether this would also result in a good therapeutic outcome, i.e.: can psychologists' behaviour reduce the impact of an *avoidant* coping

style on therapeutic outcome? It may also be hypothesised that a psychologist's ability to this might be dependent on their level of experience and training.

To have incorporated the investigation of the psychologists' behaviour in the study, a very different design would be required, as this would have required an in-depth examination of all of the verbal and non-verbal exchanges in the sessions. Such an investigation could only be achieved either by directly observing or videotaping all of the sessions to permit a thorough analysis to establish exactly how the psychologist and participant were interacting. This would involve time and monetary resources outwith the scope of the researcher. Furthermore, it is questionable whether the ethics committee would approve such a design, as it would involve the observation of every session. Indeed by doing this, only a biased population of patients might agree to take part, which might affect the generalisability of results to routine practice. Such a design would also have the drawback in that by observing every session, the probability of actually seeing "normal" therapeutic practice is likely to be affected due to the phenomena of social facilitation.

However, although there are considerable limitations as to the viability of investigating psychologist's behaviour, this is a very interesting area that could offer a wealth of information as to the exact factors which contribute to the process of therapeutic change and the impact of an eclectic approach in therapy.

5.5 Timing of phases in the study

5.5.1 Therapeutic Alliance

In interviews with the psychologists, some of stated that they had found it difficult to answer questions of the therapeutic alliance measure that pertained to how the patient was responding to the tasks of therapy (contained in the Patient Working Consensus subscale), as they were still in the process of assessing their patient. Although measurement of the alliance after the third session was recommended by Hardy (G. Hardy, personal communication, 14.11.02), this was based on her research into time limited cognitive therapy for depression, which suggests that interventions in her study were more prescriptive than in the present study. As there were no

expectations in the present study that therapy should be of a particular type or duration, it may not have been so appropriate to have measured the alliance after the third session.

How could this have been addressed?

In the present study it would have been difficult to have assessed the alliance later than the third session, as if the assessment was moved to after the fourth or fifth session, there is a risk that information would be lost from participants who dropped out early or who only had a brief intervention. However, a possible compromise for future investigations of this nature might be to have measurements of the alliance after a set number of sessions e.g.: third and fifth sessions to look at how alliance changes with the progression of therapy. Another alternative could be to measure the alliance after each session, which would also offer an opportunity to look at exactly which aspects of the alliance are formed (or not) at different stages in therapy. This could also permit the investigation of the stability of the alliance measured after the third session of therapy in comparison to the measurement of the alliance after later sessions. However, the measurement of the alliance after every session might in itself affect the alliance by heightening psychologists' awareness of it. For this and logistical reasons, the alliance was only measured once in the study.

5.5.2 Therapeutic outcome

The measurement of therapeutic outcome after the sixth session was incorporated into the design to allow a measure of therapeutic change within the time frame of the study. However, it is recognised that current NHS guidelines (DoH, 2001) state that therapies of fewer than eight sessions are unlikely to be optimally effective for most moderate to severe mental health problems. Thus, as previously mentioned, further investigations would be needed to ascertain whether the findings of the study are representative of results obtained at the end of therapy and subsequent follow-up. By doing this, the validity of the current findings may be assessed.

5.5.3 Repeated measures

The use of repeated measures in the design of the study may have affected the reliability of the results. With repeated use of the same measure in research, there is a risk that individuals' responses become less reliable over time; participants may give socially desirable responses that reflect what they think the researcher wants to see, rather than an honest reflection of their functioning (or whatever is being assessed). This issue is quite difficult to address in research as repeated measures are often used for comparative purposes. In the present study, the repeat measures - the CORE and the Coping Responses Inventory – were carefully considered and had been reported as suitable for repetition in their respective manuals. However, there is a possibility that their repeated use over time may have affected the results.

5.6 Participants

5.6.1 Clinical Group

To have a varied sample that represents the population that is being studied is considered vital to the validity of research projects. However, as most ethics committees stipulate that patients must be informed about research and actively opt-in if they wish to participate, a common consequence of this is that the research sample being investigated is actually highly unrepresentative of the population that the researcher has set out to examine (Clark-Carter, 2001). Within the current study, there were two issues that could have affected the probability of a population being recruited that was unrepresentative of a typical *clinical* population.

The first was that as participants had to go through two opt-in procedures to take part in the study (confirming they wanted a clinical psychology appointment and then that they wanted to take part in the study), more highly *avoidant* participants may have self-excluded from the study. There was little action that the researcher could have taken to change this double opt-in process on account of the local ethics committee's regulations.

The second issue was that to ask potentially *avoidant* people to take part in research that examined aspects of their psychological functioning may have been contra-indicative to the rationale of the study and could have resulted with a population devoid of *avoidant* participants.

This was addressed in the design of the study by taking care to limit the amount and content of personal information the participants were asked to give, in an attempt to encourage potentially *avoidant* patients to participate. As a variation in participants' coping styles both from responses to the Coping Responses Inventory and from psychologists' observations, and in the severity of their levels of psychological distress were found, it appears that these efforts yielded some success in encouraging a diverse group of participants to take part in the study. However, it is also acknowledged that the double opt-in procedure to the study may have resulted in a biased sample of participants who present for clinical psychology services.

5.6.2 Non-Clinical Group

Although the scores of a *non-clinical* control group were found to differ from that of the *clinical* group, the *non-clinical* group differed significantly in terms of age from the *clinical* group. Furthermore, the selection criterion was to not have sought or requested psychiatric or psychological help in the past 12 months. However, the levels of psychological distress that participants in the *non-clinical* group may have been experiencing were unknown. These issues could have been addressed by matching *non-clinical* participants to *clinical* participants by age and by having asked members of the *non-clinical* group to complete a CORE questionnaire as well as the Coping Responses Inventory.

5.7 Measures

5.7.1 Coping Responses Inventory

The advantage of using the Coping Responses Inventory rather than the Daily Living Questionnaire, as used in the Gaston study et al (1988) has been demonstrated in this investigation, as it has permitted the investigation of the effect of both *approach* and *avoidant* coping styles on alliance and outcome, rather than just *avoidant* coping style, and indicated that *approach* coping may have an important role in therapy.

However, it is possible that there may be problems inherent in the use of a questionnaire to measure participants' coping style. Studies into repressive coping have found that individuals with this coping style dislike being exposed to stimuli that makes them feel anxious (Myers,

2000) and that they utilise strategies such as distraction to avoid this. This appears to have the consequence that they find it difficult to recall remembering negative memories (Myers & Brewin, 1994). Given the aforementioned similarity between repressive coping and cognitive *avoidant* coping, asking individuals who potentially had this coping style to complete a problem orientated questionnaire may not have been an appropriate manner with which to assess their coping style. Consequently when responding to the Coping Responses Inventory, they may have had difficulties in part one recalling the most stressful situation they have encountered over the past 12 months, or avoided doing so, with the potential result that their coping style was misidentified.

One possible way to have assessed if this had happened would have been to add some memory tests in order to investigate how accurately participants were able to recall personal information, that may be of a distressing nature. For example, participants could have been assessed on their ability to recall verified autobiographical information from their medical notes. However, although such a procedure might aid the investigation of whether the Coping Responses Inventory is a reliable measure with which to assess coping, it could raise ethical questions and there would still be the issue of whether patients with actual *avoidant* coping styles would agree to take part in research of this nature. An alternative way in which it might be possible to investigate this, could be to systematically compare participants' coping styles as measured on the inventory, to the opinions of their psychologists, to ascertain if they are in agreement. This may help to establish how sensitive the inventory is to measuring individual's emotional avoidance, although this procedure is not ideal as the rating of the psychologist may be subjective.

A further limitation of the Coping Responses Inventory is that participants' coping style, as identified pre-therapy, may only have been reflective of how they respond to the stressor they acknowledged as being the most stressful which may not be representative of their coping style when faced with other stressors. Whilst the literature on this issue suggests that only a small part of the variance (approximately 3%) in individual's coping styles is attributable to the stressor on which they base their responses (Mccrae, 1982), further investigation of how individuals respond to the Coping Responses Inventory when different stressors types have been identified would be needed to see if this would also be the case in a *clinical* population similar to the one examined in the study.

5.7.2 California Psychotherapy Alliance Scales

Although all of the psychologists who were interviewed stated that they had found this scale quite easy to understand and complete, one question was identified as being ambiguous to interpret. If the psychologists had been given specific instructions as to the intention of each question, the content of these questions could have been clarified. Similarly, the psychologists may also have benefited from a training session on how to complete the measure, which would have helped to make sure that this was done in a standardised manner. To have also assessed the inter-reliability of how psychologists scored the measure could have allowed for the validity of the psychologists' responses to be investigated.

Another issue regarding the alliance is that whilst the psychologists were blind to which of their patients were taking part in the study until the patient's third session, after this, the psychologists were no longer blind. This may have affected their subsequent behaviour in therapy by heightening their awareness of their role in therapy and by prompting them that the therapeutic outcome of their patient was to be formally assessed after their sixth session.

Although keeping the psychologists blind in the study was an important consideration in the design of the study, it was not possible to have obtained the measurement of the therapeutic alliance without in any other way that would have allowed the psychologists to remain blind. Hypothetically, they could have been asked to rate all of their patients on alliance measures after the third session of therapy and only used the scales pertaining to the participants in the study. This might have had the effect that the psychologists' would soon become accustomed to completing the scales, which may reduce the likelihood that they would change their behaviour. However, to have psychologists complete an alliance measure for each of their patients would be quite timely and it is unlikely whether the department or local ethics committee would have approved this.

5.7.3 CORE

Whilst the CORE has been developed for repeated use for populations similar to the one used in the study, it has some limitations that may have had a negative impact on the results. As the

CORE is a self-report measure, it's use as a measure with which to assess psychological functioning is restricted as the patients' symptomatology or changes in their functioning are only assessed from their point of view, which may be biased (Kadzin, 1994). This risk of bias could have been addressed in the current study by having the participants' psychologists complete an independent measure to assess their levels of distress such as the Global Assessment of Functioning scale (GAF, American Psychiatric Association, 1994), at the same times as the participants (pre-therapy and after six sessions), which could be used for comparative purposes.

5.8 Summary

As discussed above, a number of limitations were identified in the study that may have affected the reliability of the results. In particular, statistical power was not maintained throughout the study, and there is a possibility that type one errors were made. A repeat of the study involving at least 30 participants at all phases would be required in order for power at 0.8 to be achieved, which would ascertain if type one errors had been made. Similarly, although the results indicated that aspects of patient coping style were associated with therapeutic outcome after six sessions of therapy, the measurement of therapeutic outcome at the end of therapy and follow up is needed to determine whether these results are a reliable and stable indication of actual therapeutic outcome. In addition, the reliability of patient coping style as measured by the Coping Responses Inventory merits further investigation.

Other limitations that which should be considered and addressed in future investigations of a similar nature include the assessment of patients' functioning at the start, middle and end of therapy, should be measured not only by them but also by an independent observer, such as their psychologists in order to account for any bias the patient might have. In addition, when assessing therapeutic alliance, efforts should be made to assess the alliance at repeated times during therapy, as this may permit comprehensive process analysis of how therapeutic alliance is formed and the factors that influence it. It would also be important to keep the measurement of the alliance as natural as possible, so as not to compromise the results of any study by allowing this to influence the alliance. Long-term measurement of the alliance is also needed to verify if a good alliance formed early in therapy with patients with an *approach* coping style is maintained throughout. By addressing and incorporating these issues into future research studies to examine

the role of patient coping style in psychological therapy, the reliability of this study may be determined.

5.9 Future Research and Investigation

The investigation into the role of patient coping style in psychological therapy raised some issues that would be of interest to investigate in future research. Given the recent attention in the literature to process elements in therapy, it may be fruitful to explore the impact of psychologists' behaviour on patient coping style. For example, it would of interest to examine whether patients with an *avoidant* coping style are able to form a good therapeutic alliance over time and if so, whether they can have as good an outcome as those with an *approach* coping style. The examination of these issues could help to advance knowledge about the processes that contribute to the therapeutic alliance and may also help us to learn more about the impact of an eclectic approach in therapy. As already mentioned, such an investigated may be accomplished by the use of in-depth analysis of therapeutic sessions from video/tape recordings so the verbal exchanges, and non-verbal behaviours that are presented in therapy can be learnt.

In addition, it would also be of interest to ascertain whether patients with an *avoidant* coping style are more likely than patients with an *approach* coping style to drop out of therapy, as has been suggested by some clinicians (Horowitz et al, 1997). In the present study it is unknown why participants dropped out of therapy or chose not to return information pertaining to the study, as it is against ethical committee regulations to follow up such participants without their express prior consent to do so. However, if ethical permission were granted, it would be interesting to investigate the reasons why these participants dropped out and if their reasons were related to their coping style.

As the results indicated that the concept of cognitive avoidance coping appeared to be similar of that of repressive coping, a formal investigation of this may shed some light on why individuals make use of this coping strategy. This could be achieved by comparing individuals' responses on the Coping Responses Inventory with their responses on a measure(s) used to assess repressive coping, such as that devised by Weinberger et al (1979), to investigate if these are the same psychological concept or at least share characteristics. Knowledge about this may further our understanding as to the functions of *avoidance* coping for the individual.

6.1 Conclusions

The results of the study indicated that patient coping style plays an important role in psychological therapy. In particular, it was found that patients who had a strong reliance on cognitive *approach* coping strategies formed a good therapeutic alliance with their psychologist and had a reduction in their levels of psychological distress after six sessions of therapy. Conversely, patients with a strong reliance on cognitive avoidance coping strategies were found to form poorer therapeutic alliances with their psychologist and to experience smaller reductions in their levels of psychological distress after six sessions of therapy. This suggests that patients' reliance on cognitive *approach* coping strategies appears to increase the likelihood that a good therapeutic alliance and a reduction in symptomatology will be attained, whereas patients' reliance on cognitive avoidance coping strategies appears to increase the likelihood of the reverse. This indicates that patient's scores on the cognitive subscales of the Coping Responses Inventory be may of use to psychologists when considering which patients might benefit from individual psychological therapy. Whilst patients' reliance on certain *approach* and *avoidant* behavioural coping strategies were found to be associated with the formation of a good therapeutic alliance and outcome after six sessions, these were not found to be so useful at differentiating patient responses to therapy. In addition, the manner in which some of these strategies had been conceptualised in the inventory limited their use for clinical purposes. The results also gave some indication that the therapeutic alliance might have a possible mediating role between patient coping style and therapeutic outcome, although this was unable to be proven by statistical analysis.

Whilst taking the limitations of the study into consideration, the results may have implications as to the selection criteria of patients for individual psychotherapy. At present, in an attempt to prioritise patients for psychotherapy, the NHS has proposed a tiered system whereby patients are considered for different levels of psychological interventions on the basis of the complexity and severity of their problems. Such an approach has also been advocated by Durham et al (2000). However, the results of this study indicate that aspects of patient coping style may also be important to consider, as these appear to have a significant influence on how well a patient engages in therapy, and also their therapeutic outcome (after six sessions of therapy). Furthermore, this was found to occur independently of the severity of their symptoms, which suggests that patient coping style is an important variable in and of itself.

Of course, patient coping style may only be a small part of the jigsaw as to what factors influence patient engagement in therapy and therapeutic outcome. As suggested by some researchers, other patient characteristics like patient motivation (Keijsers et al, 1999) and their psychological mindedness (Conte et al, 1991) may also be important to consider. Likewise, the search for single patient attributes and their impact in psychotherapy reduces the complexity of the numerous factors that may influence on this relationship. Thus, the consideration of patient coping style may be of value when trying to assess which patients should be prioritised to receive individual psychotherapy but only as part of a wider screening process. However, taking the limitations of this study into account, when considered alongside previous research into patient coping style in psychotherapy, the results appear to suggest that patient coping style plays an important role in psychological therapy and that knowledge of a patients' coping style may go some way towards helping psychologists to establish which patients are likely to benefit from individual psychotherapy.

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Appendices

Appendix	Content
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Appendix: 1

Grampian Primary Care NHS Trust

Clinical and Counselling Psychology
Adult Mental Health Directorate
Block A
Clerkseat Building
Royal Cornhill Hospital
ABERDEEN AB25 2ZH
Tel (01224) 557219
Fax: (01224) 557870

NHS Grampian

An Invitation to Participate in Research

I am currently conducting a study into patient coping styles in psychotherapy. As part of my data collection, I am asking patients who attend clinical psychology appointments to complete a short 15-minute questionnaire to assess their coping style.

I would also like to investigate how a non-clinical sample would respond to this questionnaire, to see if there are differences between clinical and non-clinical populations. To do this, I am looking for volunteers from a non-clinical population, to complete this questionnaire.

What happens to the information collected for the study?

All responses to the questionnaires will be anonymous and kept confidential. The only personal information you will be asked for is your age and sex. The questionnaires will be will destroyed once the study is complete.

If you are interested in taking part in this study, please contact me at:

Department of Clinical Psychology
Block A
Royal Cornhill Hospital
Aberdeen
AB25 2ZH
Tel: 01224 557 219

Thank you,

Aileen Reid
Trainee Clinical Psychologist

Appendix: 2

Coping Responses Inventory

This is your copy of the Coping Responses Inventory. *It contains questions about how you manage important problems that come up in your life.*

Please answer each question as accurately as you can. All your answers are strictly confidential. If you do not wish to answer a question, please circle the number of that question so that we know you have intentionally skipped it. If a question does not apply to you, please write 'N/A' (Not Applicable) in the margin next to the question.

We appreciate your cooperation.

Dealing with a problem or situation

Please think about the most important problem or stressful situation you have experienced *DURING THE LAST 12 MONTHS* (for example, having troubles with a relative or friend, experiencing the illness or death of a relative or friend, having an accident or illness, having financial or work problems). Describe the problem in the space provided below. If you have not experienced a major problem, then list a minor problem that you have had to deal with.

Describe the problem or situation . . . . . .

. . . . . .

. . . . . .

Part I

Please answer the following questions about the problem you have listed.
Place an 'X' in the appropriate box.

	Definitely No 0	Mainly No 1	Mainly Yes 2	Definitely Yes 3
1. Have you ever faced a problem like this before?	☐	☐	☐	☐
2. Did you know this problem was going to occur?	☐	☐	☐	☐
3. Did you have enough time to get ready to handle this problem?	☐	☐	☐	☐
4. When this problem occurred, did you think of it as a threat?	☐	☐	☐	☐
5. When this problem occurred, did you think of it as a challenge?	☐	☐	☐	☐
6. Was this problem caused by something you did?	☐	☐	☐	☐
7. Was this problem caused by something someone else did? . .	☐	☐	☐	☐
8. Did any thing good come out of dealing with this problem? . .	☐	☐	☐	☐
9. Has this problem or situation been resolved?	☐	☐	☐	☐
10. If the problem has been worked out, did it turn out all right for you?	☐	☐	☐	☐

PART II

Please think again about the problem you thought about at the beginning of this inventory. Indicate which of the following you did in connection with that situation.

Did you:	NO 0	YES, once or twice 1	YES, some-times. 2	YES, fairly often 3
1. Think of different ways to deal with the problem?	☐	☐	☐	☐
2. Tell yourself things to make yourself feel better?	☐	☐	☐	☐
3. Talk with your partner or other relative about the problem?	☐	☐	☐	☐
4. Make a plan of action and follow it?	☐	☐	☐	☐
5. Try to forget the whole thing?	☐	☐	☐	☐
6. Feel that time would make a difference – the only thing to do was wait?	☐	☐	☐	☐
7. Try to help others deal with a similar problem?	☐	☐	☐	☐
8. Take it out on other people when you felt angry or depressed?	☐	☐	☐	☐
9. Try to step back from the situation and be more objective?	☐	☐	☐	☐
10. Remind yourself how much worse things could be?	☐	☐	☐	☐
11. Talk with a friend about the problem?	☐	☐	☐	☐
12. Know what had to be done and try hard to make things work?	☐	☐	☐	☐
13. Try not to think about the problem?	☐	☐	☐	☐
14. Realize that you had no control over the problem?	☐	☐	☐	☐
15. Get involved in new activities?	☐	☐	☐	☐
16. Take a chance and do something risky?	☐	☐	☐	☐
17. Go over in your mind what you would say or do?	☐	☐	☐	☐
18. Try to see the good side of the situation?	☐	☐	☐	☐
19. Talk with a professional person (e.g. doctor, lawyer, clergy)?	☐	☐	☐	☐
20. Decide what you wanted and try hard to get it?	☐	☐	☐	☐

Questions about how you handled the problem you thought about at the beginning of this Inventory (continued).

Did you:	NO 0	YES, once or twice 1	YES, some-times 2	YES, fairly often 3
21. Daydream or imagine a better time or place than the one you were in?	☐	☐	☐	☐
22. Think that the outcome would be decided by fate?	☐	☐	☐	☐
23. Try to make new friends?	☐	☐	☐	☐
24. Keep away from people in general?	☐	☐	☐	☐
25. Try to anticipate how things would turn out?	☐	☐	☐	☐
26. Think about how you were much better off than other people with similar problems?	☐	☐	☐	☐
27. Seek help from persons or groups with the same type of problem?	☐	☐	☐	☐
28. Try at least two different ways to solve the problem?	☐	☐	☐	☐
29. Try to put off thinking about the situation, even though you knew you would have to at some point?	☐	☐	☐	☐
30. Accept it; nothing could be done?	☐	☐	☐	☐
31. Read more often as a source of enjoyment?	☐	☐	☐	☐
32. Yell or shout to let off steam?	☐	☐	☐	☐
33. Try to find some personal meaning in the situation?	☐	☐	☐	☐
34. Try to tell yourself that things would get better?	☐	☐	☐	☐
35. Try to find out more about the situation?	☐	☐	☐	☐
36. Try to learn to do more things on your own?	☐	☐	☐	☐
37. Wish the problem would go away or somehow be over with?	☐	☐	☐	☐
38. Expect the worst possible outcome?	☐	☐	☐	☐
39. Spend more time in recreational activities?	☐	☐	☐	☐
40. Cry to let your feelings out?	☐	☐	☐	☐
41. Try to anticipate the new demands that would be placed on you?	☐	☐	☐	☐

P.T.O.

Questions about how you handled the problem you thought about at the beginning of this Inventory (continued).

Did you:	NO 0	YES, once or twice 1	YES, some-times 2	YES, fairly often 3
42. Think about how this event could change your life in a positive way?	☐	☐	☐	☐
43. Pray for guidance and/or strength?	☐	☐	☐	☐
44. Take things a day at a time, one step at a time?	☐	☐	☐	☐
45. Try to deny how serious the problem really was?	☐	☐	☐	☐
46. Lose hope that things would ever be the same?	☐	☐	☐	☐
47. Turn to work or other activities to help you manage things?	☐	☐	☐	☐
48. Do something that you didn't think would work, but at least you were doing something?	☐	☐	☐	☐

This completes the Inventory. Thank you very much for your help.

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Appendix: 3

Appendix: 3 Scoring Information

Coping Responses Inventory

The 48 items on the CRI pertain to eight subscales as indicated in Table 1. Respondents' raw scores on the CRI are converted to standard scores as indicated in Table 2.

Table 1. The items in each of the subscales in the Coping Responses Inventory

Category	**Logical Analysis**	**Positive Reappraisal**	**Seeking Support**	**Problem-solving**
Approach	1	2	3	4
	9	10	11	12
	17	18	19	20
	25	26	27	28
	33	34	35	36
	41	42	43	44
Avoidance	**Cognitive Avoidance**	**Acceptance**	**Alternative Rewards**	**Emotional Discharge**
	5	6	7	8
	13	14	15	16
	21	22	23	24
	29	30	31	32
	37	38	39	40
	45	46	47	48

Table: 2 Coping Responses Inventory raw score conversion to standard score conversion table

Raw score	Logical Analysis	Positive Reapp.	Support	Problem Solv.	Cog. Avoid.	Accpet.	Alt. Rewards	Emotion. Disch.
0	22	27	27	24	34	33	37	39
1	24	29	29	27	37	35	39	42
2	27	31	32	29	39	37	42	45
3	29	34	34	31	41	40	44	48
4	32	36	37	34	44	42	46	51
5	34	38	39	36	46	44	48	54
6	37	40	42	38	48	47	51	57
7	39	42	44	41	51	49	53	60
8	42	45	47	43	53	52	55	63
9	44	47	49	45	55	54	58	66
10	47	49	52	48	58	56	60	69
11	50	51	54	50	60	59	62	72
12	52	53	57	52	62	61	64	75
13	55	56	59	55	65	63	67	79
14	57	58	62	57	67	66	69	82
15	60	60	64	60	69	68	71	85
16	62	62	67	62	72	70	74	88
17	65	65	69	64	74	73	76	91
18	67	68	72	67	76	75	78	94

CALPAS

CALPAS-T

The four scales of the CALPAS-T are comprised of the following items:

- PWC items are: 1-6
- PC items are: 7-12
- WSC items are: 13-19 (reflect item 18)
- TUI items are: 19-24 (reflect item 22)

The ratings of the 24 items are summed up for the items defining each scale and a total scale is obtained by adding all of the subscale scores together.

CALPAS-P

The four scales of the CALPAS-P are comprised of the following items:

- PWC items are: 2, 4, 11 (reflect all)
- PC items are: 1, 7, 9 (reflect 7 ,9)
- WSC items are: 5, 8, 10
- TUI items are: 3, 6, 12.

The ratings of the 12 items are summed up for the items defining each scale and a total scale is obtained by adding all of the subscale scores together.

The CALPAS manual states that high scores on each scale indicate a good therapeutic alliance but does not provide any information or cut-off points, nor any specific interpretation information as to what range of scores might constitute a good, moderate or poor alliance.

CORE

The total score is calculated by adding the response values of all of the 34 items. The minimum score that can be achieved is 0 and maximum is 136. The total mean score is calculated by dividing the total score by the number of completed item responses (normally 34). The mean scores for each dimension are calculated by dividing the total scores by the number of completed item responses for each dimension. The higher the score, the more distressed the individual. In the case of missing data, the score is only divided by the number of item responses completed. Where an individual scores more than 0 on any item marked risk, this should be identified for further attention to the clinician.

Appendix: 4

Appendix: 4 Interpretative Information about the subscales of the CALPAS provided from a revised manual on the CALPAS by Gaston (1993).

Patient Working Capacity (PWC)

This scale reflects the patient's ability to work actively and purposefully in treatment, that is, forming a "working alliance" with the therapist. To do this, the patient needs to self-disclose important material and work with the therapist's comments in a way that fosters the experience of strong emotions, the deepening of salient themes, and the resolution of problems. The clinical evidence reflecting the degree to which a patient purposefully work in therapy usually derives from the interaction between the patient and the therapist, as well as from the salience of the material provided by the patient. Sometimes, a patient provides intimate material and experiences strong emotions in treatment, but these elements are not sufficient for a good working alliance to happen. For a good alliance, meaning has to emerge from the material provided by the patient and emotions need to be sufficiently contained and congruent with the material. Otherwise, such a display can be more reflective of a defensive disorganization rather than of therapeutic work.

Patient Commitment (PC)

This scale examines the degree to which the patient views the therapist as trustworthy and well-intended. It reflects the patient's attitude to therapy, including affectionate trusting feelings and a commitment to go through the complete process of therapy, even if it entails difficult moments and sacrifices. It corresponds to an attachment, partly emotional and partly rational, to therapy and the therapist. The subcomponents of the PC are: confidence that efforts will lead to change, willingness to make sacrifices such as time, vision of therapy as an important experience, trust in therapy and therapist, participation despite painful moments and commitment to complete therapy. Sometimes patients communicate their commitment by sharing with the therapist their satisfaction or dissatisfaction of therapy. Likewise the patient's behaviours can also be indicative of the PWC e.g.: arriving late for therapy sessions or making small talk, rather than exploring difficulties.

Working Strategy Consensus (WSC)

This scale reflects the degree of agreement, implicit or explicit, between patient and therapist about how therapy should proceed. The subcomponents of this scales are: patient and therapist share the same ideas about how people get help and how people change in therapy, patient and therapist share the same ideas about how to proceed in therapy, the therapist understands what the patient wants to get out of therapy; patient and therapist work in a joint effort and do not work at cross-purposes.

Therapist Understanding and Involvement (TUI)

This scale reflects components of a therapist's involvement in therapy; the therapist's empathic understanding of the patient's difficulties and sufferings, in and outside of therapy; the therapist' understanding of the underlying reasons for these difficulties; the therapist's active participation in therapy for the sake of the patient. The subcomponents are: to demonstrate a non-judgemental acceptance of the patient, to understand the patient's subjective point of view and suffering; to risk addressing the patient's core difficulties; to intervene with tact to help the patient in overcoming his or her problems. A therapist may empathically understand the patient's subjective world without sharing it, through reflections or formulations.

Appendix: 5

Department of Clinical Psychology
Block A, Royal Cornhill Hospital
Aberdeen, AB25 2ZH
Tel: 01224 557 532 Fax: 01224 557 870

NHS Grampian

Dear .....

I write to inform you that your patient..... has been participating in the departmental research study.

I would therefore be grateful if you could complete the following information in regard to your patient **immediately after your sixth session with your patient.**

1. Please state your patient's ICD-10 diagnosis:.....
.....
.....

2. Please tick the box that best describes the type of therapy you have been doing with your patient. If you were using an eclectic approach, please tick the box that describes the approach (s) you used most:

Cognitive behavioural approach ☐

Schema therapy ☐

Psychodynamic psychotherapy ☐

Interpersonal psychotherapy ☐

Cognitive Analytic Therapy ☐

Supportive Counselling ☐

Other, please state:.....
.....

3. What were your patient's pre-therapy CORE scores?

	Well-being	**Functioning**	**Risk**	**Problems**	**Global**
Total Scores					
Mean Scores					

Thank you for completing this information. Please add any comments you wish to make about the study to the back of this form and return this questionnaire to me via my pigeon-hole.

Aileen Reid, Trainee Clinical Psychologist.

Appendix 6:

Psychologist:..... Date: .....

Patients who participated in the study:.....
.....
.....

How did you find the information that you had been asked to complete for the study?

a. Therapeutic alliance:.....
.....
.....
.....

b. The end of therapy form:.....
.....
.....
.....

For individual patients: How would describe their style in therapy? e.g.: did they find it easy to talk about their problems, did they disclose personal information, were they easy to work with, did they avoid discussion of their problems, did they do their homework

Name: .....
Comments: .....
.....
.....
.....

Name: .....
Comments:.....
.....
.....
.....

Name: .....
Comments: .....
.....
.....
.....

Name: .....
Comments: .....
.....
.....
.....

What features make it easy to engage with a patient in a therapy session?

.....
.....
.....

How do you think this could be assessed?

.....
.....
.....

How do you respond to patients who seem to avoid discussing their problems?

.....
.....
.....

What are your impressions of the study overall?

.....
.....
.....
.....

Do you think there were any things missing that should have been included or excluded. Is there anything you would have liked to change?

.....
.....
.....

What patient characteristics do you think are important when considering patients for individual psychotherapy?

.....
.....
.....

Any other comments

.....
.....
.....

Appendix: 7

NHS GRAMPIAN
AND
UNIVERSITY OF ABERDEEN

GRAMPIAN RESEARCH ETHICS COMMITTEE

Chairmen

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Tel: (01224) 558503
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Project Number: 03/007

11th February 2003

Ms Aileen Reid
Trainee Clinical Psychologist
Dept of Clinical Psychology
Block A
Royal Cornhill Hospital
Aberdeen

Dear Ms Reid

Suitability for psychotherapy: an investigation into coping styles as a predictor of therapeutic outcome

Thank you for your recent letter, which we received on the 31st January 2003. I am pleased to confirm that full ethical approval has been granted for the above numbered project and the revised patient information sheet.

With regards to medical indemnity, I enclose a form which should be completed and returned to either, Prof J Broom, Research & Development Director, Research & Development Offices, Grampian University Hospitals Trust, Westburn House, Foresterhill, Aberdeen, or, Dr G Peterkin, Medical Director, Grampian Primary Care Trust, Summerfield House, 2 Eday Road, Aberdeen as appropriate, if you wish one of the above Trusts to accept liability for medical indemnity for this project.

We would be very glad to receive in due course, copies of any publications arising from this research. Thank you for bringing this study to the Committee's attention.

Yours sincerely

Mrs Diane Murray
Clerk to the Grampian Research Ethics Committee

Please quote project number on all correspondence

Appendix: 8

Psychologist Information Letter

Study: An Investigation into Coping styles in Psychotherapy

Although there is convincing evidence that psychological interventions are effective in helping individuals address mental health problems, the extent of improvement varies considerably between patients.

There is a considerable literature that patient factors, such as complexity and severity of symptoms may account for some of the variance, however, there has been less research on the impact of patient's more intrinsic psychological factors. Yet psychologists commonly report difficulties engaging patients with psychological characteristics such as an avoidant coping style. In support of this observation, there is some evidence to suggest that patient's pre-treatment coping styles are predicative of therapeutic outcome, though little research has been conducted to ascertain why such characteristics lead to an un-favourable therapeutic outcome.

Many studies have demonstrated that therapeutic alliance is associated with therapeutic outcome and a recent study found the degree of patient defensiveness to be an important factor in determining patient contribution to alliance - more resistant patients were less likely to commit to treatment and to engage in an open and active collaboration with their therapist.

Based on these findings, it would therefore seem reasonable to assume that individuals with an "approach" pre-therapy coping style will be able to tolerate talking about their problems openly and so develop a good therapeutic relationship with their psychologist. This in turn could mediate a favourable treatment outcome and the opposite could be true for patients with an "avoidant" coping style.

This research project has been designed to test this hypothesis by measuring patient's pre-therapy coping style and their therapeutic alliance with their psychologist after three sessions and level of psychological distress after six sessions.

In addition, whilst there is strong evidence to suggest that individuals' coping style is a personality trait that remains static throughout therapy, few studies have actually examined this. Therefore, a further aim of the study is to examine whether or not coping style could change over the course of therapy / as part of the therapeutic process.

What is the patient's involvement in this study?

When patients opt-in to having a Clinical Psychology Appointment, they will be sent a research pack consisting of:

- A Patient Information Letter explaining the research
- A Consent Form
- A Coping Responses Inventory (Moos, 1990) to ascertain their coping style
- A pre-paid envelope

If patients wish to participate in the study, they will sign the consent form and complete the questionnaire and return it in the pre-paid envelope before their first session and their GP will be informed of their participation in the study. If patients decide that they do not want to participate, they need do nothing further.

As soon as patients return the completed pre-therapy questionnaires to the researcher, they will be sent a letter to thank them for participating in the study and to confirm their participation.

After the patient's third therapy session, they will be sent a copy of the Therapeutic Alliance Scale either through the post or via their psychologist, for completion. At this time, psychologists will also be asked to complete the Therapist's version of the Therapeutic Alliance Scale. This is to obtain an insight into the reliability of the patient's perception of alliance.

After the patient's sixth session of therapy, they will be sent a copy of the following questionnaires, either through the post or via their psychologist, for completion:

- Coping Responses Inventory (to see if their coping style has changed)
- The Clinical Outcome in Routine Evaluation (to compare against pre-therapy scores)

This completes the patient's involvement in the study.

What do I have to do?

After your patient's third session of therapy you will be asked to complete the parallel therapist's version of the Therapeutic Alliance Scale questionnaire and after their sixth session you will be asked to complete a short questionnaire to detail:

- The patient's diagnosis, as defined by ICD-10.
- The type of therapy that you have been doing with the patient.
- Your patient's pre-therapy CORE scores

No further information will be required.

Will the patient be aware of my involvement in the study?

Yes, the patients are aware that you will be completing two questionnaires, one after their third session of therapy and one after their sixth session to detail how they found the experience of therapy, their diagnosis and therapy type.

Will I be told my patient's responses to the questionnaires?

No, psychologists will be blind to their patient's responses and you will not have access to any of their responses at any time during or after the study.

How do I find out if my patient is involved in the study?

All patients who opt-in to the department are being invited to participate in the study. If your patient agrees to participate, you will not be told about this, until their third session of therapy (to try and avoid bias in therapy sessions). I will be keeping a note of how many sessions each patient has attended by monitoring the secretary's diaries. When your patient's third and sixth sessions of therapy are due, the relevant questionnaires will either be sent to you and your patient (or given to you to pass on to your patient) with instructions for their completion.

How might this study be of benefit to the department?

By knowing what type of patient may respond best to psychotherapy, it could further our knowledge about selection criteria for patients likely to quickly form an alliance with their psychologist and the impact that this alliance might have on outcome. This could allow psychologists to tailor therapy to address these issues. For example, if the research confirms that individuals with avoidant coping styles have difficulty engaging with their therapist and so do less well in one to one therapy, instead of attempting this standard approach, less costly psycho-educational self-help or support groups could be offered as an alternative.

What do I do now?

Please read over the information enclosed in this letter and do not hesitate to contact me if you have any questions about this research study.

Aileen Reid, Trainee Clinical Psychologist, Principle Researcher

Department of Clinical Psychology
Block A, Royal Cornhill Hospital
Aberdeen, AB25 2ZH
Tel: 01224 557 532 Fax: 01224 557 870

NHS Grampian

PSYCHOLOGIST CONSENT FORM

Study: An Investigation into Coping styles in Psychotherapy

Your Name: .....

Principal Investigator: Aileen Reid, Trainee Clinical Psychologist

Please read the information below and sign if you agree with the statement

"I have read the psychologist information sheet on the above study and have had the opportunity to discuss the details with Aileen Reid and ask questions if I wish. I fully understand the nature and purpose of the questionnaires to be completed and what is proposed to be done".

"I have agreed to take part in the study as it has been outlined to me and am aware that I will not have access to my patient's responses in the study at any time."

"Should I have any reservations about my patient's ability to give their informed consent to participate in the study, I will inform Aileen Reid immediately".

"I hereby fully and freely consent to participate in the study which has been fully explained to me".

Signature: .....

Date: .....

"If the above individual has any queries about the research study, they are welcome to contact me to discuss these."

Aileen Reid
.....
Aileen Reid
Trainee Clinical Psychologist

Appendix: 9

Appendix: 9 Information about the Waiting List Initiative

Introduction

An initiative aimed to reduce waiting list times by offering patients referred for clinical psychology a maximum of six sessions of therapy was established in February 2000 in the same department as the current study. Patients were invited to opt-in to the initiative and received a maximum of six sessions. An evaluation of the service after one year was carried out, with the aim of investigating whether the time-limited therapy had yielded lasting improvements in the mental health of patients seen under the initiative.

Method

The Hospital Anxiety and Depression Scale (HAD, Zigmond & Snaith, 1983) and the Clinical Outcomes in Routine Evaluation (CORE Systems Group, 1998) were given to all patients pre and post attendance. Patients who had been discharged at the time of the evaluation were surveyed by post to investigate their view of the initiative and were asked to repeat the HAD and CORE (follow-up). The effectiveness of the initiative was explored by a comparison of patients' scores on these measures at pre, post and follow up to therapy.

Results

The majority of patients experienced a reduction in their HAD and CORE scores from pre to post therapy and for the majority of these patients, these gains were maintained at follow-up.

Conclusion

The initiative appeared to have been an effective and satisfactory method to patients of delivering short-term psychological interventions.

Appendix: 10

Department of Clinical Psychology
Block A, Royal Cornhill Hospital
Aberdeen, Tel: 01224 557 532

NHS Grampian

Dear .....

Re: An Invitation to Participate in Research

As you may be aware, demand for Clinical Psychology services is very high and individuals often have to wait for a number of months before they can be seen. We are currently investigating methods to improve our service and how best to match the needs of our patients to the treatments we can offer. Recent research suggests that some individuals do better in certain types of therapy than others.

I would like to invite you to take part in a research study investigating whether certain individual characteristics have an impact on how beneficial people find psychological help.

What will I have to do if I take part?

The study involves the completion of four short questionnaires:
One before you start therapy, one after your third session of therapy and two questionnaires after your sixth session of therapy.
Your participation in the study will then be complete.

What do the questionnaires look at?

The questionnaires ask about a number of areas, including how you tend to cope with problems, the kind of problems you might have and how you find your sessions with your psychologist. The questionnaire that looks at the kind of problems you have, is routinely sent out to all patients before seeing a psychologist.

What happens to the information I give as part of the study?

All responses to the questionnaires will be kept completely confidential. Your psychologist will not be given any information about your responses to the questionnaires. Furthermore, the researcher will not have access to your medical or psychology files at any time during the study. No individual's names will be kept on computer and all of the information regarding the study will be kept separately from your psychology files in a locked filing cabinet.

Will my psychologist be taking part in the study?

After your third and sixth sessions session of therapy, your psychologist will be asked to complete a short form to detail how they think you have found the experience of therapy, the type of difficulty you have been experiencing, the type of therapy you have been receiving and your pre-therapy scores on the CORE questionnaire (the CORE is an assessment that all psychologists ask their patients to complete before starting therapy). Your psychologist will not be asked for any of your personal details regarding the content of your therapy sessions.

What are the possible risks of taking part?

We do not envisage that participation in the study will have any detrimental effect on the participants.

Are there any possible benefits?

We hope that the information from this study will help us to improve the delivery of Psychological Services to the general public by enabling us to match individuals with the type of therapy that we believe will suit them best, although there are unlikely to be any personal benefits to the individuals who participate in the study.

Do I have to take part?

No, taking part is voluntary. If you would prefer not to take part, you do not have to give a reason. Your treatment would not be affected in any way. If you take part and later change your mind, you can withdraw at any time.

If you decide you would like to take part, we would like to inform your GP that you are taking part, with your permission.

What do I do now?

Please read the information contained in this form carefully to help you decide if you would like to participate in this study. If you decide that you would like to take part, please complete the consent form and the enclosed questionnaire and return them in the pre-paid envelope.

You do not need to put your name on any of the questionnaires, as all of them will be numerically coded and the researcher will be the only person to have access to participants' codes.

You will be then be sent a letter confirming your participation in the study and information regarding the completion of questionnaires after your third and sixth sessions of therapy.

If you decide that you do not want to participate, please discard the enclosed questionnaires and you will not be contacted again regarding this study.

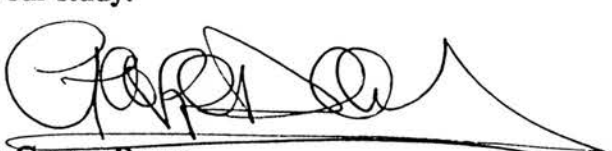
Please discuss this information with your family and friends if you wish.

If you would like any further information or have any queries about this study, please contact the principle researcher, who is known to the department.

Aileen Reid, Trainee Clinical Psychologist

Tel: 01224 557 532.
Department of Clinical Psychology
Block A, Royal Cornhill Hospital, Aberdeen

Thank you for taking the time to read this information and for considering taking part in our study.



Dr George Deans
Consultant Clinical Psychologist
Sector Head

Department of Clinical Psychology
Block A, Royal Cornhill Hospital
Aberdeen, AB25 2ZH
Tel: 01224 557 532 Fax: 01224 557 870

NHS
Grampian

PATIENT CONSENT FORM

Study: An Investigation into Coping styles in Psychotherapy

Your Name: .....

Principal Investigator: Aileen Reid, Trainee Clinical Psychologist

Please read the information below and sign if you agree with the statement

I have read the patient/volunteer information sheet on the above study and have been given a contact number and the opportunity to discuss the details with Aileen Reid and ask questions, if I wish.

I have agreed to take part in the study as it has been outlined to me, but I understand that I am completely free to withdraw from the study or any part of the study at any time I wish and that this will not affect my continuing psychological treatment in any way.

I understand that these trials are part of a research project designed to promote healthcare knowledge, which has been approved by the Grampian Research Ethics Committee, and may be of no benefit to me personally.

I hereby fully and freely consent to participate in the study which has been fully explained to me.

Signature: .....

Date: .....

We would like to inform your General Practitioner that you are taking part in this study by way of a standard letter.

Do you give your consent for a letter to be sent to your General Practitioner to inform them that you are taking part in this research?

YES ☐ **NO** ☐

The above participant will be able to contact me if they have any queries at any time throughout the research study.

Aileen Reid
.....
Aileen Reid
Trainee Clinical Psychologist

Coping Responses Inventory

This is your copy of the **Coping Responses Inventory**. *It contains questions about how you manage important problems that come up in your life.*

Please answer each question as accurately as you can. All your answers are strictly confidential. If you do not wish to answer a question, please circle the number of that question so that we know you have intentionally skipped it. If a question does not apply to you, please write 'N/A' (Not Applicable) in the margin next to the question.

We appreciate your cooperation.

What is your name? .....

What is today's date? .....

What is your date of birth?.....

DEALING WITH A PROBLEM OR SITUATION

Please think about the most important or stressful situation you have experienced DURING THE PAST 12 MONTHS, for example, having troubles with a relative or friend, experiencing the illness or death of a relative or friend, having an accident, or having financial or work problems. If you cannot think of a major problem, then think of a minor problem you have had to deal with.

What area of your life did this problem concern? (please tick the box that most applies)

Spouse or partner ☐ **Physical illness** ☐ **Financial** ☐ **Work** ☐

Parent(s) or extended family ☐ **Home and neighbourhood** ☐ **Children** ☐ **Friend (s)** ☐

Other ☐

PART I
Please answer the following questions about the problem you have thought about.
Place a tick in the appropriate box.

	Definitely No 0	Mainly No 1	Mainly Yes 2	Definitely Yes 3
1. Have you ever faced a problem like this before?	☐	☐	☐	☐
2. Did you know this problem was going to occur?	☐	☐	☐	☐
3. Did you have enough time to get ready to handle this problem?	☐	☐	☐	☐
4. When this problem occurred, did you think of it as a threat?	☐	☐	☐	☐
5. When this problem occurred, did you think of it as a challenge?	☐	☐	☐	☐
6. Was this problem caused by something you did?	☐	☐	☐	☐
7. Was this problem caused by something someone else did?	☐	☐	☐	☐
8. Did any thing good come out of dealing with this problem?	☐	☐	☐	☐
9. Has this problem or situation been resolved?	☐	☐	☐	☐
10. If the problem has been worked out, did it turn out all right for you?	☐	☐	☐	☐

Questions about how you handled the problem you thought about at the beginning of this Inventory (continued).

Did you:	NO 0	YES, once or twice 1	YES, some-times 2	YES, fairly often 3
21. Daydream or imagine a better time or place than the one you were in?	☐	☐	☐	☐
22. Think that the outcome would be decided by fate?	☐	☐	☐	☐
23. Try to make new friends?	☐	☐	☐	☐
24. Keep away from people in general?	☐	☐	☐	☐
25. Try to anticipate how things would turn out?	☐	☐	☐	☐
26. Think about how you were much better off than other people with similar problems?	☐	☐	☐	☐
27. Seek help from persons or groups with the same type of problem?	☐	☐	☐	☐
28. Try at least two different ways to solve the problem?	☐	☐	☐	☐
29. Try to put off thinking about the situation, even though you knew you would have to at some point?	☐	☐	☐	☐
30. Accept it; nothing could be done?	☐	☐	☐	☐
31. Read more often as a source of enjoyment?	☐	☐	☐	☐
32. Yell or shout to let off steam?	☐	☐	☐	☐
33. Try to find some personal meaning in the situation?	☐	☐	☐	☐
34. Try to tell yourself that things would get better?	☐	☐	☐	☐
35. Try to find out more about the situation?	☐	☐	☐	☐
36. Try to learn to do more things on your own?	☐	☐	☐	☐
37. Wish the problem would go away or somehow be over with?	☐	☐	☐	☐
38. Expect the worst possible outcome?	☐	☐	☐	☐
39. Spend more time in recreational activities?	☐	☐	☐	☐
40. Cry to let your feelings out?	☐	☐	☐	☐
41. Try to anticipate the new demands that would be placed on you?	☐	☐	☐	☐

Appendix: 11

NHS
Grampian

Department of Clinical Psychology
Block A, Royal Cornhill Hospital
Aberdeen, AB25 2ZH
Tel: 01224 557 532 Fax: 01224 557 870

Dear participant,

Thank you for agreeing to participate in the Clinical Psychology Research study. Your participation is helping us to research an important area of our service.

- After your third session of therapy, a questionnaire will be sent to you, either by post or given to your psychologist to give to you, with instructions for completion. This questionnaire will ask you questions about the sessions you have attended. Your responses to this questionnaire will be confidential.

- After your sixth session of therapy, two final questionnaires will be sent to you, either by post or given to your psychologist to give to you, again with instructions on how to compete and return them. One of these questionnaires is the same one you were asked to complete pre-therapy as part of the study and the other is the same as the one your psychologist asked you to complete before you started therapy. Again, your responses to these questionnaires will be confidential.

Your participation in the study will then be complete.

If you have any queries about this letter or about any part of the research, please do not hesitate to contact me.

Thank you again for your participation in this study.

Yours sincerely,

Aileen Reid

Aileen Reid
Trainee Clinical Psychologist

Appendix: 12

Department of Clinical Psychology
Block A, Royal Cornhill Hospital
Aberdeen, AB25 2ZH
Tel: 01224 557 532 Fax: 01224 557 870

NHS
Grampian

Dear .....

I write to inform you that your patient..... has consented to take part in a research study within the Department of Clinical Psychology.

The study is looking at whether patient's characteristics pre-therapy are predictive of therapeutic alliance and outcome. Your patient's involvement consists of:

1. The completion of two pre-treatment questionnaires. These look at the patient's coping style and psychological functioning / level of distress.

2. After three sessions of therapy, your patient will be asked to complete a therapeutic alliance questionnaire to examine their relationship with their psychologist.

3. After six sessions of therapy, your patient will be asked to repeat the two questionnaires, completed before treatment.

This will complete your patient's involvement in the study.

Please do not hesitate to contact me at any time if your have any queries about this study or your patient's involvement in the study.

Yours sincerely,

Aileen Reid
Trainee Clinical Psychologist

Appendix: 13

Grampian Primary Care NHS Trust

Clinical and Counselling Psychology
Adult Mental Health Directorate
Block A
Clerkseat Building
Royal Cornhill Hospital
ABERDEEN AB25 2ZH
Tel (01224) 557219
Fax: (01224) 557870

IN CONFIDENCE

Date: 19 June 2003
Your Ref:
Our Ref: AR/MM

Dear Sir / Madam

Re: An Invitation to Participate in Research

I am currently conducting a study into patient coping styles in psychotherapy. As part of my data collection, I am asking patients who attend clinical psychology appointments to complete a short questionnaire to assess their coping style.

I would also like to investigate how a non-clinical sample would respond to this questionnaire, to see if there are differences between clinical and non-clinical populations.

I would therefore be extremely grateful if you could complete the enclosed questionnaire.

What happens to the information I give as part of the study?

All responses to the questionnaires will be anonymous and kept confidential. The only personal information you will be asked for is your age and sex. The questionnaires will be will destroyed once the study is complete.

If you would like any further information about this study please do not hesitate to contact me at the address above.

Thank you

Aileen Reid
Trainee Clinical Psychologist

Coping Responses Inventory

This is your copy of the Coping Responses Inventory. *It contains questions about how you manage important problems that come up in your life.*

Please answer each question as accurately as you can. All your answers are strictly confidential. If you do not wish to answer a question, please circle the number of that question so that we know you have intentionally skipped it. If a question does not apply to you, please write 'N/A' (Not Applicable) in the margin next to the question.

We appreciate your cooperation.

This questionnaire takes about 15 minutes to complete

Non Clinical Control .....

What is today's date? .....

What is your age? .....

What gender are you? Male ☐ **Female** ☐

Have you sought or received any psychological or psychiatric help in the past 12 months?

Yes ☐ **No** ☐

Private and confidential

DEALING WITH A PROBLEM OR SITUATION

Please think about the most important or stressful situation you have experienced DURING THE PAST 12 MONTHS, for example, having troubles with a relative or friend, experiencing the illness or death of a relative or friend, having an accident, or having financial or work problems. If you cannot think of a major problem, then think of a minor problem you have had to deal with.

What area of your life did this problem concern? (please tick the box that most applies)

Spouse or partner ☐ **Physical illness** ☐ **Financial** ☐ **Work** ☐

Parent(s) or extended family ☐ **Home and neighbourhood** ☐ **Children** ☐ **Friend (s)** ☐

Other ☐

PART I
Please answer the following questions about the problem you have thought about.
Place a tick in the appropriate box.

	Definitely No 0	Mainly No 1	Mainly Yes 2	Definitely Yes 3
1. Have you ever faced a problem like this before?	☐	☐	☐	☐
2. Did you know this problem was going to occur?	☐	☐	☐	☐
3. Did you have enough time to get ready to handle this problem?	☐	☐	☐	☐
4. When this problem occurred, did you think of it as a threat?	☐	☐	☐	☐
5. When this problem occurred, did you think of it as a challenge?	☐	☐	☐	☐
6. Was this problem caused by something you did?	☐	☐	☐	☐
7. Was this problem caused by something someone else did?	☐	☐	☐	☐
8. Did any thing good come out of dealing with this problem?	☐	☐	☐	☐
9. Has this problem or situation been resolved?	☐	☐	☐	☐
10. If the problem has been worked out, did it turn out all right for you?	☐	☐	☐	☐

PART II

Please think again about the problem you thought about at the beginning of this inventory. Indicate which of the following you did in connection with that situation.

Did you:	NO 0	YES, once or twice 1	YES, some-times 2	YES, fairly often 3
1. Think of different ways to deal with the problem?	☐	☐	☐	☐
2. Tell yourself things to make yourself feel better?	☐	☐	☐	☐
3. Talk with your partner or other relative about the problem?	☐	☐	☐	☐
4. Make a plan of action and follow it?	☐	☐	☐	☐
5. Try to forget the whole thing?	☐	☐	☐	☐
6. Feel that time would make a difference – the only thing to do was wait?	☐	☐	☐	☐
7. Try to help others deal with a similar problem?	☐	☐	☐	☐
8. Take it out on other people when you felt angry or depressed?	☐	☐	☐	☐
9. Try to step back from the situation and be more objective?	☐	☐	☐	☐
10. Remind yourself how much worse things could be?	☐	☐	☐	☐
11. Talk with a friend about the problem?	☐	☐	☐	☐
12. Know what had to be done and try hard to make things work?	☐	☐	☐	☐
13. Try not to think about the problem?	☐	☐	☐	☐
14. Realize that you had no control over the problem?	☐	☐	☐	☐
15. Get involved in new activities?	☐	☐	☐	☐
16. Take a chance and do something risky?	☐	☐	☐	☐
17. Go over in your mind what you would say or do?	☐	☐	☐	☐
18. Try to see the good side of the situation?	☐	☐	☐	☐
19. Talk with a professional person (e.g. doctor, lawyer, clergy)?	☐	☐	☐	☐
20. Decide what you wanted and try hard to get it?	☐	☐	☐	☐

Questions about how you handled the problem you thought about at the beginning of this Inventory (continued).

Did you:	NO 0	YES, once or twice 1	YES, some-times 2	YES, fairly often 3
21. Daydream or imagine a better time or place than the one you were in?	☐	☐	☐	☐
22. Think that the outcome would be decided by fate?	☐	☐	☐	☐
23. Try to make new friends?	☐	☐	☐	☐
24. Keep away from people in general?	☐	☐	☐	☐
25. Try to anticipate how things would turn out?	☐	☐	☐	☐
26. Think about how you were much better off than other people with similar problems?	☐	☐	☐	☐
27. Seek help from persons or groups with the same type of problem?	☐	☐	☐	☐
28. Try at least two different ways to solve the problem?	☐	☐	☐	☐
29. Try to put off thinking about the situation, even though you knew you would have to at some point?	☐	☐	☐	☐
30. Accept it; nothing could be done?	☐	☐	☐	☐
31. Read more often as a source of enjoyment?	☐	☐	☐	☐
32. Yell or shout to let off steam?	☐	☐	☐	☐
33. Try to find some personal meaning in the situation?	☐	☐	☐	☐
34. Try to tell yourself that things would get better?	☐	☐	☐	☐
35. Try to find out more about the situation?	☐	☐	☐	☐
36. Try to learn to do more things on your own?	☐	☐	☐	☐
37. Wish the problem would go away or somehow be over with?	☐	☐	☐	☐
38. Expect the worst possible outcome?	☐	☐	☐	☐
39. Spend more time in recreational activities?	☐	☐	☐	☐
40. Cry to let your feelings out?	☐	☐	☐	☐
41. Try to anticipate the new demands that would be placed on you?	☐	☐	☐	☐

P.T.O.

Questions about how you handled the problem you thought about at the beginning of this Inventory (continued).

Did you:	NO 0	YES, once or twice 1	YES, some-times 2	YES, fairly often 3
42. Think about how this event could change your life in a positive way?	☐	☐	☐	☐
43. Pray for guidance and/or strength?	☐	☐	☐	☐
44. Take things a day at a time, one step at a time?	☐	☐	☐	☐
45. Try to deny how serious the problem really was?	☐	☐	☐	☐
46. Lose hope that things would ever be the same?	☐	☐	☐	☐
47. Turn to work or other activities to help you manage things?	☐	☐	☐	☐
48. Do something that you didn't think would work, but at least you were doing something?	☐	☐	☐	☐

This completes the Inventory. Thank you very much for your help.

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Appendix: 14

Department of Clinical Psychology
Block A, Royal Cornhill Hospital
Aberdeen, AB25 2ZH
Tel: 01224 557 532 Fax: 01224 557 870

Dear Participant

Re: Research Study

As you have now had your third session of therapy, I would be very grateful if you could complete the enclosed questionnaire and return as soon as possible.

A final set of questionnaires will be given to you after your sixth session of therapy.

Please remember that all of your responses are completely confidential and will not be shared with your psychologist at any time.

Thank you again for your participation.

Aileen Reid
Trainee Clinical Psychologist
Enc.

ID: _____ Date: _____

CALIFORNIA PSYCHOTHERAPY ALLIANCE SCALES - SHORT FORM

PATIENT VERSION

***Directions**: Below is a list of questions that describe attitudes people might have about their therapy or therapist. Think about the session you just completed and decide the degree to which each question best describes your experience. Circle the number indicating your choice.*

***Reminder**: Your responses on this form are confidential and will not be seen by your therapist. You are of course free to discuss with your therapist any of these questions.*

1 = Not at all, 2 = A little bit, 3 = Somewhat, 4 = Moderately, 5 = Quite a bit, 6 = Quite a lot, 7 = Very much so.

1. Did you feel that even if you might have moments of doubt, confusion, or mistrust, that overall therapy is worthwhile?	1	2	3	4	5	6	7
2. When important things came to mind, how often did find yourself keeping them to yourself rather than sharing them with your therapist?	1	2	3	4	5	6	7
3. Did you feel accepted and respected by your therapist for who you are?	1	2	3	4	5	6	7
4. How much did you hold back your feelings during this session?	1	2	3	4	5	6	7
5. Did you feel that you were working together with your therapist, that the two of you were joined in a struggle to overcome your problems?	1	2	3	4	5	6	7
6. During this session, how dedicated was your therapist to helping you overcome your difficulties?	1	2	3	4	5	6	7
7. How much did you resent the time, or other demands of your therapy?	1	2	3	4	5	6	7
8. Did you feel that your therapist understood what you hoped to get out of this session?	1	2	3	4	5	6	7
9. How much did you find yourself thinking that therapy was not the best way to get help with your problems?	1	2	3	4	5	6	7
10. Did the treatment you received in this session match with your ideas about what helps people in therapy?	1	2	3	4	5	6	7
11. Did you have the impression that you were unable to deepen your understanding of what is bothering you?	1	2	3	4	5	6	7
12. How much did your therapist help you gain a deeper understanding of your problems?	1	2	3	4	5	6	7

Appendix: 15

Department of Clinical Psychology
Block A, Royal Cornhill Hospital
Aberdeen, AB25 2ZH
Tel: 01224 557 532 Fax: 01224 557 870

Dear .....

I write to inform you that your patient..... has been participating in the departmental research study.

I would therefore be grateful if you could complete the enclosed therapeutic alliance scale in regard to your patient **immediately after your third session with your patient** and return to me, via my pigeon-hole.

Thank-you,

Aileen Reid
Trainee Clinical Psychologist
Enc.

Patient's ID: _____ Date:

CALIFORNIA PSYCHOTHERAPY ALLIANCE SCALES

THERAPIST VERSION

Directions: Using the 7-point scale provided below, indicate the degree to which each item describes what happened in therapy with this patient over the last month.

1 = not at all; 2 = A little bit; 3 = Somewhat; 4 = Moderately; 5 = Quite a bit; 6 = Quite a lot; 7 = Very much so.

1. The patient disclosed thoughts and feelings.	1	2	3	4	5	6	7
2. The patient observed his or her own behaviors.	1	2	3	4	5	6	7
3. The patient explored his or her own contribution to problems.	1	2	3	4	5	6	7
4. The patient experienced strong and modulated emotions.	1	2	3	4	5	6	7
5. The patient worked actively with my comments.	1	2	3	4	5	6	7
6. The patient deepened exploration of salient themes.	1	2	3	4	5	6	7
7. The patient was confident that efforts will lead to change.	1	2	3	4	5	6	7
8. The patient was willing to make sacrifices, i.e., time.	1	2	3	4	5	6	7
9. The patient viewed therapy as important.	1	2	3	4	5	6	7
10. The patient had confidence in therapy/therapist.	1	2	3	4	5	6	7
11. The patient participated in therapy despite painful moments.	1	2	3	4	5	6	7
12. The patient was committed to go through process to completion.	1	2	3	4	5	6	7
13. The therapy proceeded in accord with the patient's ideas of helpful change processes.	1	2	3	4	5	6	7
14. The patient and I worked in a joint struggle.	1	2	3	4	5	6	7
15. The patient and I agreed about the kind of changes to make.	1	2	3	4	5	6	7
16. The patient and I shared same sense about how to proceed.	1	2	3	4	5	6	7
17. The patient and I agreed on salient themes.	1	2	3	4	5	6	7
18. My interventions were guided by one model.	1	2	3	4	5	6	7
19. I was able to understand the patient's suffering and subjective world.	1	2	3	4	5	6	7
20. I could remain non-judgmental, regard the patient positively.	1	2	3	4	5	6	7
21. I felt committed to help the patient, and had confidence in therapy.	1	2	3	4	5	6	7
22. At times I had difficulties keeping the patient's best interests as my chief concern.	1	2	3	4	5	6	7
23. My interventions were tactful and well-timed.	1	2	3	4	5	6	7
24. My interventions facilitated the patient's work on salient themes.	1	2	3	4	5	6	7

Appendix: 16

Department of Clinical Psychology
Block A, Royal Cornhill Hospital
Aberdeen, AB25 2ZH
Tel: 01224 557 532 Fax: 01224 557 870

Dear Participant

Re: Research Study

As you have now had your sixth session of therapy, enclosed are the final two questionnaires needed to complete your participation in the study.

This completes your participation in the research study.

Thank you for your participation.

Aileen Reid
Trainee Clinical Psychologist
Enc.

CLINICAL OUTCOMES in ROUTINE EVALUATION (FV1)

MENTAL HEALTH FOUNDATION

Site ID

letters only | numbers only

Client ID

letters only | numbers only

Sub codes

Date Completed D D / M M / Y Y

Age

Male

Female

Stage Completed

P Pre Therapy
F First Therapy Session
D During Therapy
L Last Therapy Session
X Follow up

Session Number

(First *therapy* session = session 001)

IMPORTANT - PLEASE READ THIS FIRST

This form has 34 statements about how you have been OVER THE LAST WEEK. Please read each statement and think how often you felt that way last week. Then tick the box which is closest to this.

Over the last week	Not at all	Only Occasionally	Sometimes	Often	Most or all the time	OFFICE USE ONLY
I have felt terribly alone and isolated	0	1	2	3	4	F
I have felt tense, anxious or nervous	0	1	2	3	4	P
I have felt I have someone to turn to for support when needed	4	3	2	1	0	F
I have felt O.K. about myself	4	3	2	1	0	W
I have felt totally lacking in energy and enthusiasm	0	1	2	3	4	P
I have been physically violent to others	0	1	2	3	4	R
I have felt able to cope when things go wrong	4	3	2	1	0	F
I have been troubled by aches, pains or other physical problems	0	1	2	3	4	P
I have thought of hurting myself	0	1	2	3	4	R
Talking to people has felt too much for me	0	1	2	3	4	F
Tension and anxiety have prevented me doing important things	0	1	2	3	4	P
I have been happy with the things I have done.	4	3	2	1	0	F
I have been disturbed by unwanted thoughts and feelings	0	1	2	3	4	P
I have felt like crying	0	1	2	3	4	W

Please turn over

Over the last week

		Not at all	Only Occasionally	Sometimes	Often	Most or all the time	OFFICE USE ONLY
15	I have felt panic or terror	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ P
16	I made plans to end my life	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ R
17	I have felt overwhelmed by my problems	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ W
18	I have had difficulty getting to sleep or staying asleep	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ P
19	I have felt warmth or affection for someone	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☐ F
20	My problems have been impossible to put to one side	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ P
21	I have been able to do most things I needed to	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☐ F
22	I have threatened or intimidated another person	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ R
23	I have felt despairing or hopeless	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ P
24	I have thought it would be better if I were dead	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ R
25	I have felt criticised by other people	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ F
26	I have thought I have no friends	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ F
27	I have felt unhappy	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ P
28	Unwanted images or memories have been distressing me	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ P
29	I have been irritable when with other people	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ F
30	I have thought I am to blame for my problems and difficulties	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ P
31	I have felt optimistic about my future	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☐ W
32	I have achieved the things I wanted to	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☐ F
33	I have felt humiliated or shamed by other people	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ F
34	I have hurt myself physically or taken dangerous risks with my health	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ R

THANK YOU FOR YOUR TIME IN COMPLETING THIS QUESTIONNAIRE

	Well Being(W)	Functioning(F)	Risk(R)	Other Problems(P)	Global
Total Scores					
Mean Scores (Total score for each dimension divided by number of items completed in that dimension)					

Coping Responses Inventory

This is your copy of the **Coping Responses Inventory**. *It contains questions about how you manage important problems that come up in your life.*

Please answer each question as accurately as you can. All your answers are strictly confidential. If you do not wish to answer a question, please circle the number of that question so that we know you have intentionally skipped it. If a question does not apply to you, please write 'N/A' (Not Applicable) in the margin next to the question.

We appreciate your cooperation.

The questionnaire takes about 15 minutes to complete.

What is your name?.....

What is today's date?.....

DEALING WITH A PROBLEM OR SITUATION

Before you started therapy, you answered this questionnaire by thinking of a difficult situation that you had encountered over the past 12 months and by indicating what you did in connection with that situation.

We would now like you to complete this questionnaire again by indicating what you are NOW doing in connection with the same situation (if the situation has not been resolved). If the situation has been resolved, please base your answers on the questionnaire by indicating what you would do if the same situation were to occur again.

When you first completed this questionnaire, you said that the areas of your life that your problem/situation concerned were:

.....

.....

PART I
Please answer the following questions about the problem you have thought about.
Place a tick in the appropriate box.

	Definitely No 0	Mainly No 1	Mainly Yes 2	Definitely Yes 3
1. Have you ever faced a problem like this before?	☐	☐	☐	☐
2. Did you know this problem was going to occur?	☐	☐	☐	☐
3. Did you have enough time to get ready to handle this problem?	☐	☐	☐	☐
4. When this problem occurred, did you think of it as a threat?	☐	☐	☐	☐
5. When this problem occurred, did you think of it as a challenge?	☐	☐	☐	☐
6. Was this problem caused by something you did?	☐	☐	☐	☐
7. Was this problem caused by something someone else did?	☐	☐	☐	☐
8. Did any thing good come out of dealing with this problem?	☐	☐	☐	☐
9. Has this problem or situation been resolved?	☐	☐	☐	☐
10. If the problem has been worked out, did it turn out all right for you?	☐	☐	☐	☐

PART II

Please think again about the problem you thought about at the beginning of this inventory. Indicate which of the following you did in connection with that situation.

Did you:	NO 0	YES, once or twice 1	YES, some-times 2	YES, fairly often 3
1. Think of different ways to deal with the problem?	☐	☐	☐	☐
2. Tell yourself things to make yourself feel better?	☐	☐	☐	☐
3. Talk with your partner or other relative about the problem?	☐	☐	☐	☐
4. Make a plan of action and follow it?	☐	☐	☐	☐
5. Try to forget the whole thing?	☐	☐	☐	☐
6. Feel that time would make a difference – the only thing to do was wait?	☐	☐	☐	☐
7. Try to help others deal with a similar problem?	☐	☐	☐	☐
8. Take it out on other people when you felt angry or depressed?	☐	☐	☐	☐
9. Try to step back from the situation and be more objective?	☐	☐	☐	☐
10. Remind yourself how much worse things could be?	☐	☐	☐	☐
11. Talk with a friend about the problem?	☐	☐	☐	☐
12. Know what had to be done and try hard to make things work?	☐	☐	☐	☐
13. Try not to think about the problem?	☐	☐	☐	☐
14. Realize that you had no control over the problem?	☐	☐	☐	☐
15. Get involved in new activities?	☐	☐	☐	☐
16. Take a chance and do something risky?	☐	☐	☐	☐
17. Go over in your mind what you would say or do?	☐	☐	☐	☐
18. Try to see the good side of the situation?	☐	☐	☐	☐
19. Talk with a professional person (e.g. doctor, lawyer, clergy)?	☐	☐	☐	☐
20. Decide what you wanted and try hard to get it?	☐	☐	☐	☐

Questions about how you handled the problem you thought about at the beginning of this Inventory (continued).

Did you:	NO 0	YES, once or twice 1	YES, some-times 2	YES, fairly often 3
21. Daydream or imagine a better time or place than the one you were in?	☐	☐	☐	☐
22. Think that the outcome would be decided by fate?	☐	☐	☐	☐
23. Try to make new friends?	☐	☐	☐	☐
24. Keep away from people in general?	☐	☐	☐	☐
25. Try to anticipate how things would turn out?	☐	☐	☐	☐
26. Think about how you were much better off than other people with similar problems?	☐	☐	☐	☐
27. Seek help from persons or groups with the same type of problem?	☐	☐	☐	☐
28. Try at least two different ways to solve the problem?	☐	☐	☐	☐
29. Try to put off thinking about the situation, even though you knew you would have to at some point?	☐	☐	☐	☐
30. Accept it; nothing could be done?	☐	☐	☐	☐
31. Read more often as a source of enjoyment?	☐	☐	☐	☐
32. Yell or shout to let off steam?	☐	☐	☐	☐
33. Try to find some personal meaning in the situation?	☐	☐	☐	☐
34. Try to tell yourself that things would get better?	☐	☐	☐	☐
35. Try to find out more about the situation?	☐	☐	☐	☐
36. Try to learn to do more things on your own?	☐	☐	☐	☐
37. Wish the problem would go away or somehow be over with?	☐	☐	☐	☐
38. Expect the worst possible outcome?	☐	☐	☐	☐
39. Spend more time in recreational activities?	☐	☐	☐	☐
40. Cry to let your feelings out?	☐	☐	☐	☐
41. Try to anticipate the new demands that would be placed on you?	☐	☐	☐	☐

P.T.O

Questions about how you handled the problem you thought about at the beginning of this Inventory (continued).

Did you:	NO 0	YES, once or twice 1	YES, some-times 2	YES, fairly often 3
42. Think about how this event could change your life in a positive way?	☐	☐	☐	☐
43. Pray for guidance and/or strength?	☐	☐	☐	☐
44. Take things a day at a time, one step at a time?	☐	☐	☐	☐
45. Try to deny how serious the problem really was?	☐	☐	☐	☐
46. Lose hope that things would ever be the same?	☐	☐	☐	☐
47. Turn to work or other activities to help you manage things?	☐	☐	☐	☐
48. Do something that you didn't think would work, but at least you were doing something?	☐	☐	☐	☐

This completes the Inventory. Thank you very much for your help.

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Appendix: 17

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Block A, Royal Cornhill Hospital
Aberdeen, AB25 2ZH
Tel: 01224 557 219 Fax: 01224 557 870

NHS
Grampian

26/6/03

Dear Participant,

Thank you for agreeing to take part in the Clinical Psychology research study. I am writing to inform you that data collection for the study has now ended. You will therefore not be asked to provide any further information for the study.

Thank you again for your participation.

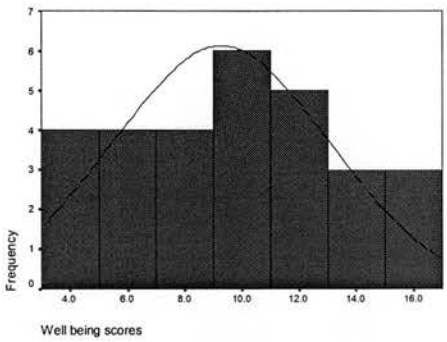
Yours sincerely,

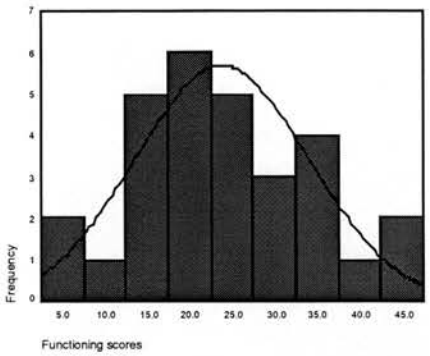
Aileen Reid

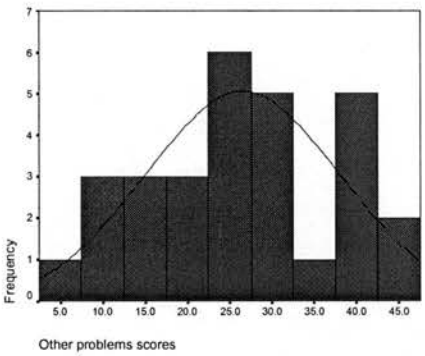
Aileen Reid
Trainee Clinical Psychologist

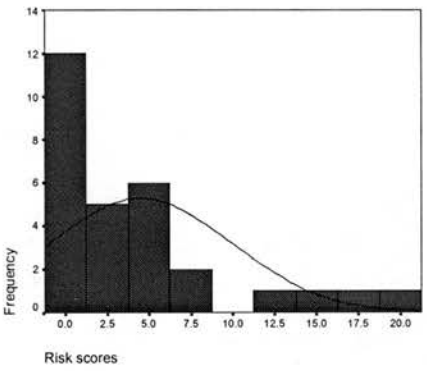
Appendix: 18

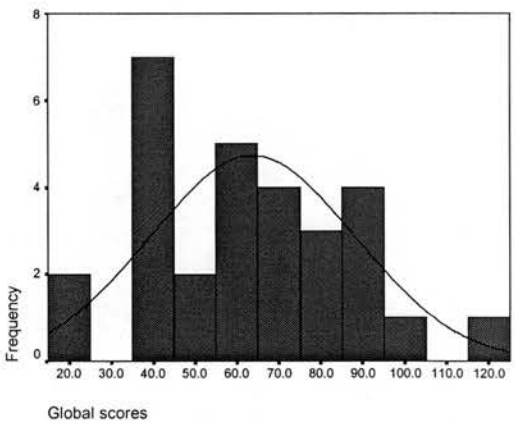
Appendix: 18 Histograms of pre-therapy scores on the subscales of the CORE







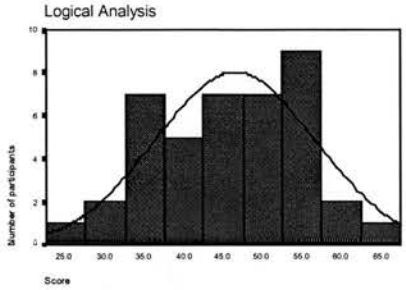




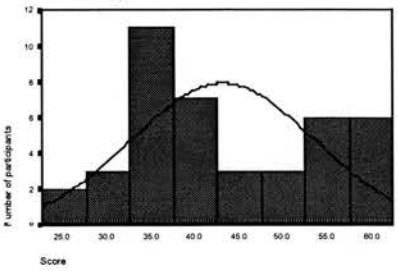
Appendix: 19

Appendix: 19 Histograms of pre-therapy scores on the subscales of the Coping Responses Inventory

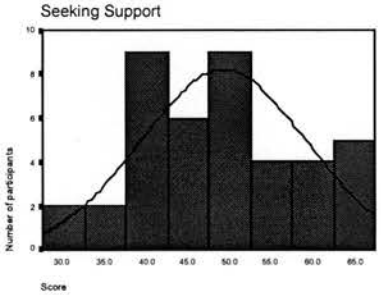
Logical Analysis



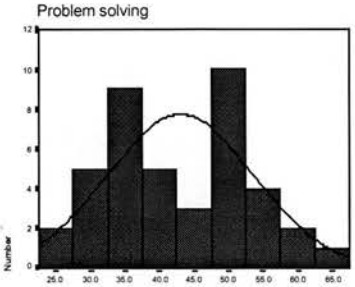
Positive Appraisal



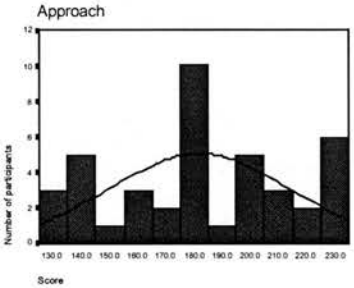
Seeking Support



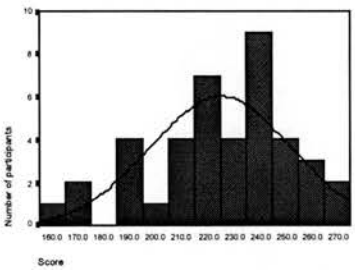
Problem solving



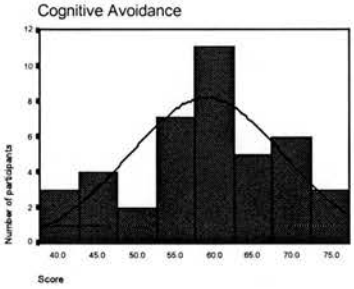
Approach



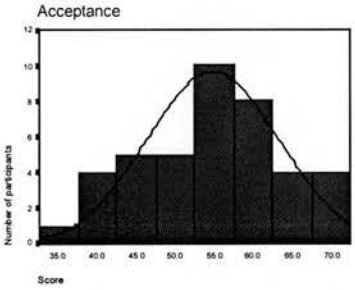
Avoidance



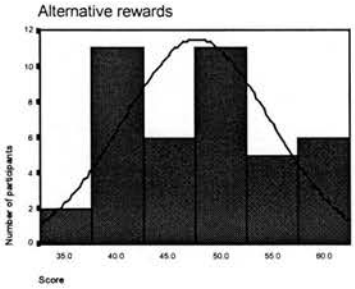
Cognitive Avoidance



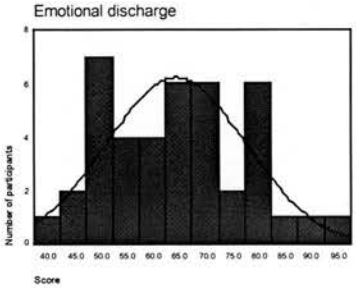
Acceptance



Alternative rewards

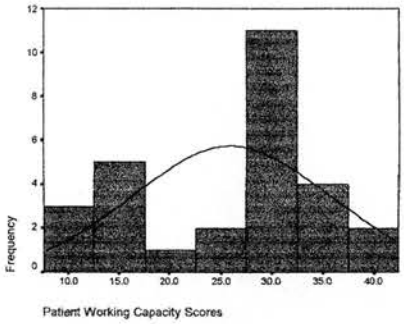


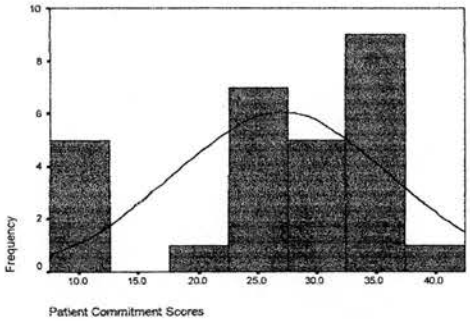
Emotional discharge

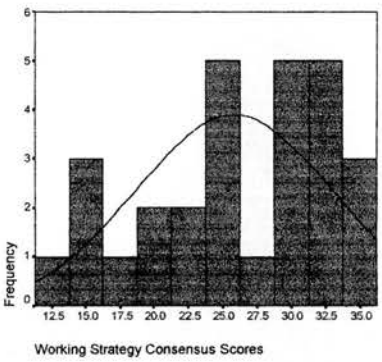


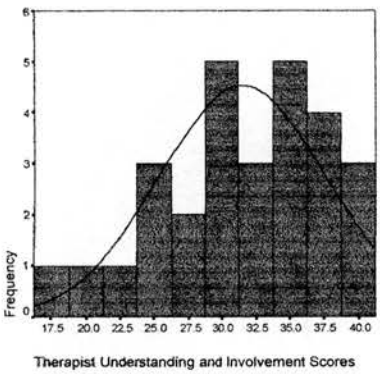
Appendix: 20

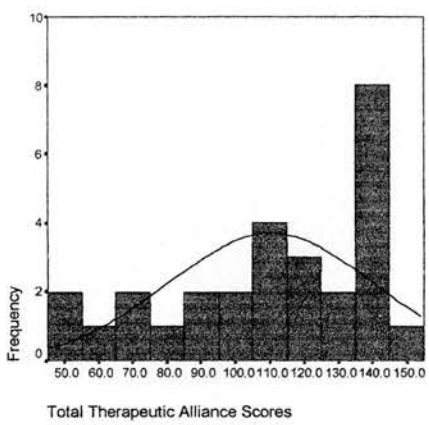
Appendix: 20 Histograms of Psychologists' ratings scores on the CALPAS-T





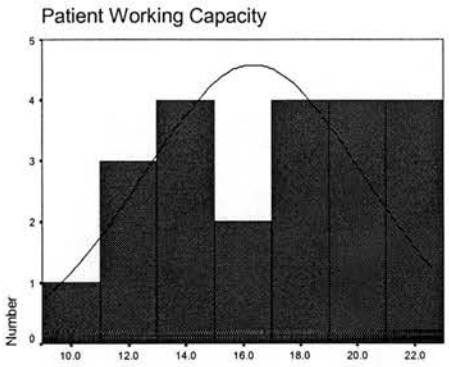


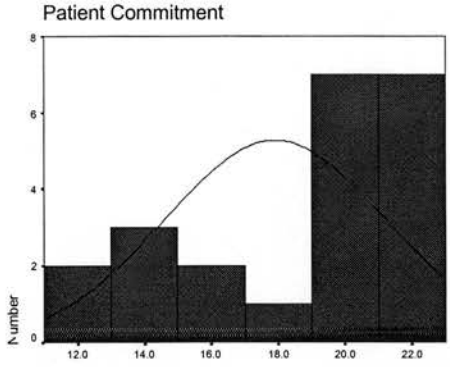


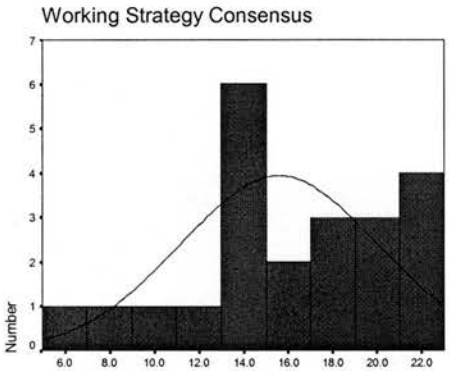


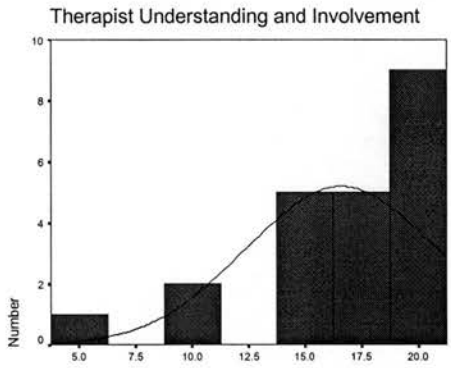
Appendix: 21

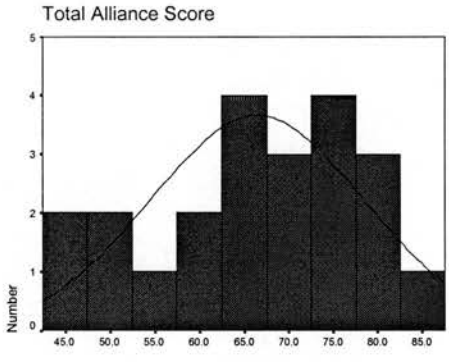
Appendix: 21 Histograms of participants' scores on the CALPAS-P





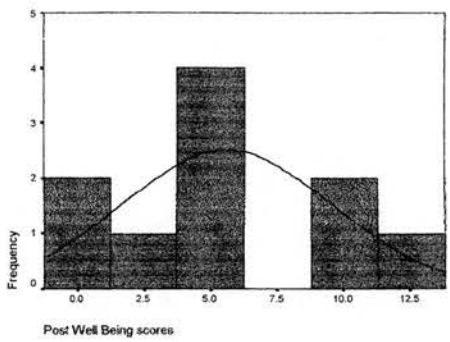


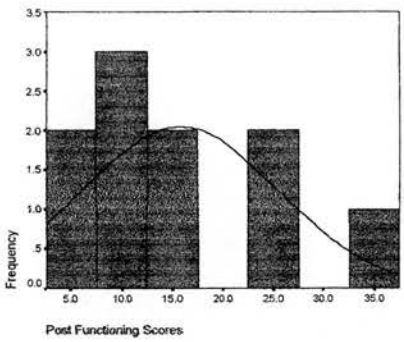


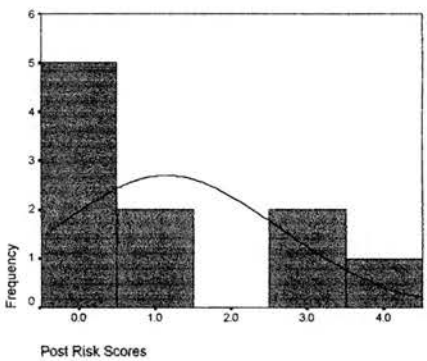


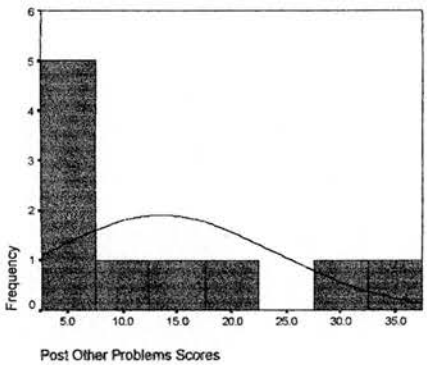
Appendix: 22

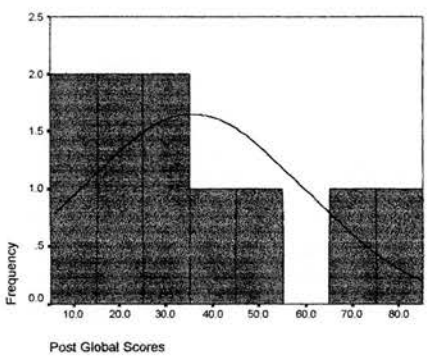
Appendix: 22 Histograms of post-therapy scores on the subscales of the CORE





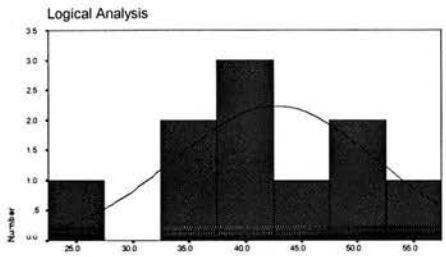


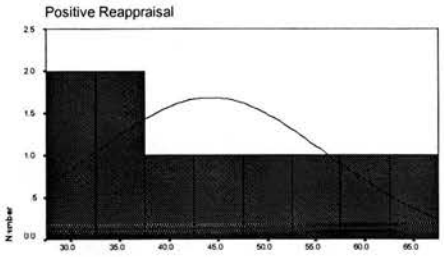


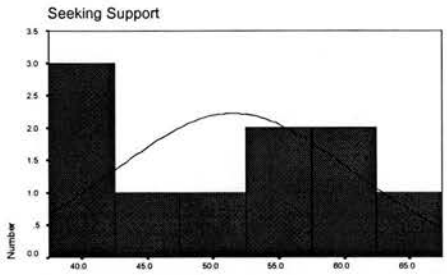


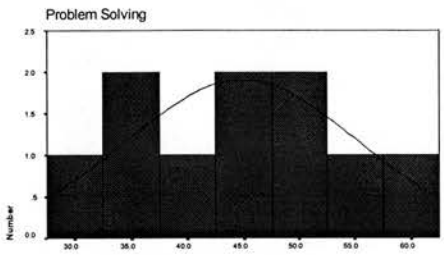
Appendix: 23

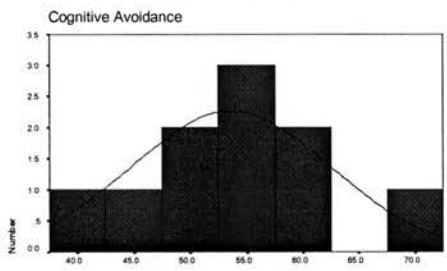
Appendix: 23 Histograms of participants' scores on the Coping Responses Inventory after six sessions of therapy

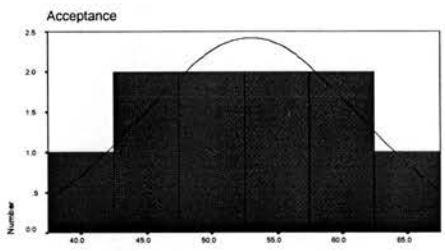


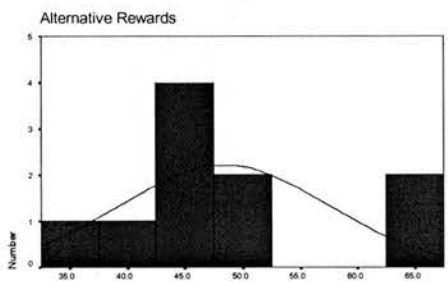


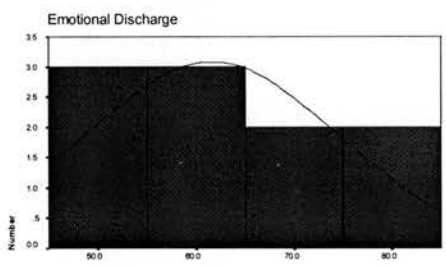


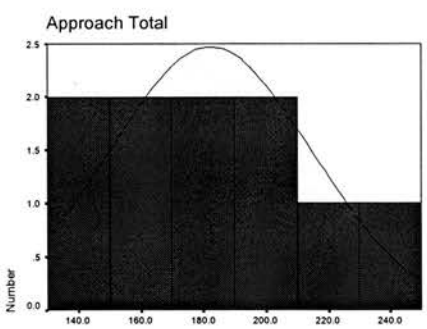


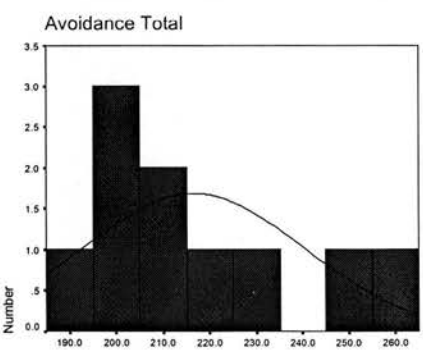












Appendix: 24

Appendix: 24 Distributions of non-clinical participants' scores on the subscales of the CRI

Table 1. The distributions on the subscales of the CRI

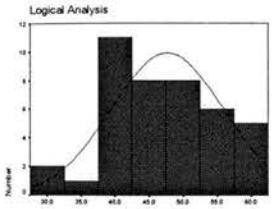
Category	Subscale	Median	Minimum	Maximum	Inter quartile range	
					25	75
Approach	Logical Analysis	47	32	62	40.5	56
	Positive Appraisal	49	29	65	42	54.5
	Seeking Support	47	34	59	42	49
	Problem Solving	45	27	67	41	55
	Total	194	144	246	174	205
Avoidance	Cognitive Avoidance	46	39	72	41	56.5
	Acceptance	42	33	66	37	52
	Alternative Rewards	46	37	69	42	53
	Emotional Discharge	48	39	75	45	57
	Total	188	130	244	171	208

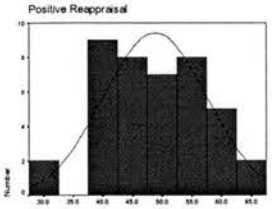
Table. 2 2-tailed Spearman's rank correlations on all subtests of the CRI

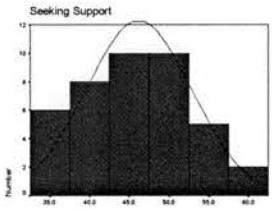
	Log. Anal	Pos. Reap	Seek Supp	Prob Solv.	App Total	Cog. Avo.	Acc.	Alt. Rew.	Emo. Dis.	Avoid. Total
Logical Analysis	1.0	**0.48** **	0.22	**0.46** **	**0.74** **	0.3	-0.17	0.1	0.15	0.24
Positive Reappraisal	**0.48** **	1.0	0.2	**0.4** *	**0.67** **	0.14	-0.01	0.28	0.12	**0.31** *
Seeking Support	0.22	0.2	1.0	**0.46** **	**0.59** **	-0.07	-0.07	0.16	-0.01	-0.18
Problem Solving	**0.46** **	**0.34** *	**0.46** **	1.0	**0.79** **	0.05	-0.05	0.21	-0.05	0.12
Approach Total	**0.74** **	**0.67** **	**0.59** **	**0.79** **	1.0	0.09	-0.07	0.29	0.07	1.0
Cognitive Avoidance	0.3	0.14	-0.75	-0.05	0.09	1.0	**0.51** **	-0.05	**0.4** **	**0.57** **
Acceptance	-0.17	-0.17	-0.73	-0.05	-0.07	0.51	1.0	0.13	**0.42** **	**0.66** **
Alternative Rewards	0.1	0.28	0.16	0.21	0.29	-0.05	0.13	1.0	**0.42** **	**0.36** *
Emotional Discharge	0.15	0.12	-0.1	-0.05	0.07	**0.4** **	**0.42** **	**0.34** *	1.0	**0.6** **
Avoidance Total	0.24	**0.31** *	-0.1	0.12	0.26	**0.57*** *	**0.66** **	**0.36** *	**0.6** **	0.26

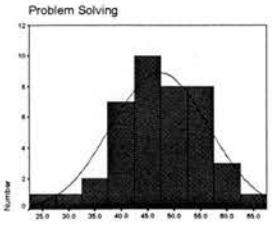
* Significant at the 0.05 level. ** Significant at the 0.01 level

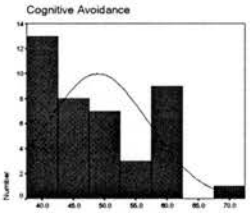
Histograms of the scores of non-clinical participants on the Coping Responses Inventory

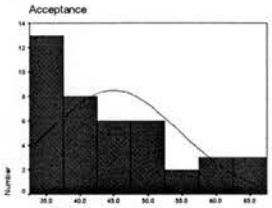


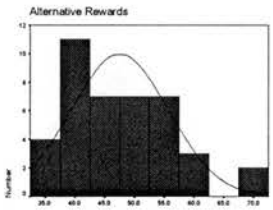


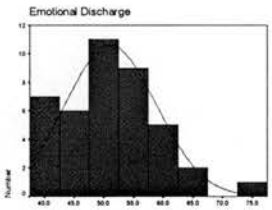


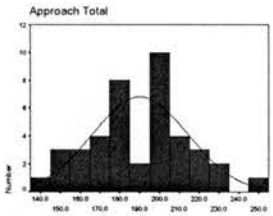


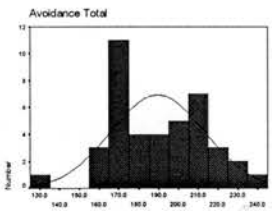












Appendix: 25

Appendix: 25 Bland and Altman plots for the Well-Being, Functioning, Risk and Other Problems subscales of the CORE